CDX-T65

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

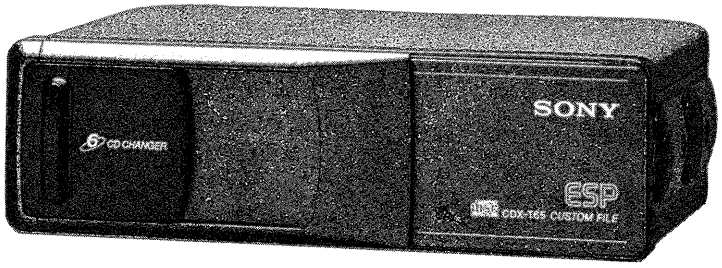

Photo: Canadian, AEP, UK, E Model

Model Name Using Similar Mechanism	CDX-T60
Optical Pick-Up Name	KSS-402A/Z-N

SPECIFICATIONS

System: Compact disc digital audio system

Laser diode properties
- Material: GaAlAs
- Wavelength: 780nm
- Emission Duration: Continuous
- Laser out-put Power: Less than 44.6 µW*
- * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

Frequency response: 5 – 20,000 Hz

Wow and flutter: Below measurable limit

Signal-to-noise ratio: 95 dB

Outputs: BUS control output (8 PIN)
Analog audio output (RCA PIN)

Current drain: 800 mA (CD playback)
800 mA (during loading or ejecting a disc)

Operating temperature: –10 °C to 55 °C (14 °F to 131 °F)

Dimensions: Approx. 225 × 68 × 158 mm ($8\,^{7}/_{8} \times 2\,^{3}/_{4} \times 6\,^{1}/_{4}$ in.) (w/h/d) not incl. projecting parts and controls

Mass: Approx. 1.5 kg (3 lb. 5 oz.)

Power requirement: 12 V DC car battery (negative ground)

Supplied accessories
- Disc magazine (1)
- Mounting hardware (1 set)
- BUS cable (1)
- RCA pin cord (1)

Design and specifications subject to change without notice.

使用時は添付資料も参照のこと
Refer to the additional documents.

COMPACT DISC CHANGER

SONY®

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Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270℃ during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

Laser Diode Properties

- Material: GaAlAs
- Wavelength: 780 nm
- Emission Duration: continuous
- Laser Output Power: less than 44.6 μW*
  * This output is the value measured at a distance of 200 mm from the objective lens surfase on the Optical Pick-up Block.

CAUTION

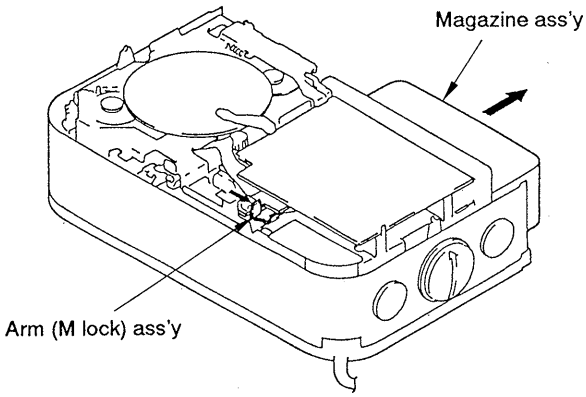
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

DISC MAGAZINE GETTING OUT PROCEDURE ON THE POWER SUPPLY IS OFF

Remove the CASE (UP) assembly beforehand

1) Press the arm (M lock) assy to arrow direction.
2) Removal the magazine assy.

Note: Take out the magazine only when the tray is completely within the magazine. If the disk or tray is sticking out, turn on the power and eject the magazine.

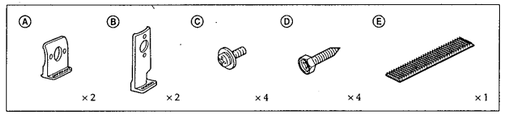


SECTION 1
GENERAL

This section is extracted from instruction manual.

Installation/Installation/Instalación/安装

Supplied Mounting Hardware/Matériel de montage fourni/Ferretería de montaje suministrada/安装用的附屬道具



In case you install the changer with parts Ⓐ and Ⓑ, first remove the screws which were installed at the time of shipping, and replace them with screws Ⓒ. Put the removed screws into a small box or a bag in order not to lose them.

Si vous montez le changeur avec les pièces Ⓐ et Ⓑ, déposez d'abord les vis installées au moment de l'expédition et remplacez-les par les vis Ⓒ. Placez les vis que vous avez déposées dans une petite boîte ou dans un sachet de façon à ne pas les égarer.

Si instala el cambiador con las piezas Ⓐ y Ⓑ, extraiga en primer lugar los tornillos instalados para su empaquetamiento y sustitúyalos por los tornillos Ⓒ. Guarde los tornillos extraídos en una pequeña caja o en una bolsa con el fin de conservarlos.

以 Ⓐ 部件和 Ⓑ 部件安裝唱片轉換器時，請先拆開本機於出廠時被封住的螺絲釘，然後改以螺絲釘 Ⓒ 封住原處。把取下來的螺絲釘收在小盒子或袋子裡以免久落。

Screws installed at time of shipping
Vis installées au moment de l'expédition
Tornillos instalados para su empaquetamiento.
出廠時裝釘上的螺絲釘

Precautions

- Choose the mounting location carefully, observing the following:
  - Unit not subject to temperatures exceeding 55 °C (131 °F) (such as in a car parked in direct sunlight).
  - Unit not subject to direct sunlight.
  - Unit not near heat sources (such as heaters).
  - Unit not exposed to rain or moisture.
  - Unit not exposed to excessive dust or dirt.
  - Unit not subject to excessive vibration.
  - The fuel tank should not be damaged by the tapping screws.
  - There should be no wire harnesses or pipes under the place where you are going to install the unit.
  - The spare tire, tools or other equipment in or under the trunk should not be interfered with or damaged by the screws or the unit itself.
- Be sure to use only the supplied mounting hardware for a safe and secure installation.
- Use velcro Ⓕ for temporary installation only. Before attaching the velcro, clean the surface it is attached to.
- Use only the supplied screws.

Precauciones

- Elija cuidadosamente el lugar de montaje y tenga en cuenta lo siguiente:
  - No instale la unidad en un lugar con temperaturas superiores a 55 °C (131 °F) (como en un automóvil aparcado bajo la luz solar directa).
  - No exponga la unidad a la luz solar directa.
  - No instale la unidad cerca de fuentes térmicas (como radiadores).
  - No exponga la unidad a la lluvia ni a la humedad.
  - No exponga la unidad al polvo excesivo ni a suciedad.
  - No exponga la unidad a fuertes vibraciones.
  - Procure no dañar el depósito de gasolina con los tornillos de cierre.
  - Procure que no se encuentren arneses de cables ni conductos debajo del lugar donde instale la unidad.
  - Procure que los tornillos o la propia unidad no interfieran ni dañen el neumático de repuesto, las herramientas ni otros equipos que se encuentren dentro o debajo del maletero.
- Para obtener una instalación firme y segura, utilice únicamente la ferretería de montaje suministrada.
- Utilice cinta velcro Ⓕ solamente para realizar una instalación provisional. Antes de adherir la cinta, limpie la superficie a la que va a fijarse.
- Utilice sólo los tornillos suministrados.

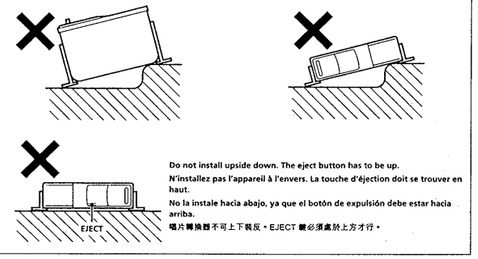
Précautions

- Choisir l'emplacement de montage en tenant compte des observations suivantes:
  - Appareil non soumis à des températures dépassant 55 °C (131 °F) (comme dans une voiture parquée au soleil).
  - Appareil non soumis au rayonnement solaire direct.
  - Appareil à l'écart de sources de chaleur (comme des radiateurs).
  - Appareil non exposé à la pluie ou à l'humidité.
  - Appareil non exposé à des poussières ou à des souillures en excès.
  - Appareil non exposé à des vibrations excessives.
  - Vérifier que le réservoir d'essence ne risque pas d'être endommagé par les vis taraudeuses.
  - Il ne doit pas y avoir de faisceau de fils ou de tuyaux à l'emplacement du montage.
  - Vérifier que l'appareil ou les vis ne risquent pas d'endommager ou de gêner la roue de secours, les outils, ou autre objet dans le coffre.
- Pour garantir la sécurité de l'installation, utiliser uniquement le matériel de montage fourni.
- Utilisez la bande velcro Ⓕ uniquement pour un montage provisoire. Avant de fixer la bande velcro, nettoyez le support de montage.
- Utilisez uniquement les vis fournies.

注意事項

- 請按照下述注意事項，小心選擇安裝位置：
  - 不可在超過55℃（131℉）的地方（如停放在陽光底下的汽車裡等）操作本機。
  - 不可把本機放在直射陽光底下。
  - 不可放在靠近熱源附近（如電暖爐等）。
  - 不可放在出中或潮湿的地方。
  - 不可放在灰塵過大的地方。
  - 不可放在易振動大的地方。
  - 不可使安裝用的螺絲對觸到行油箱。
  - 安裝位置底下不可有電路配線或導管。
  - 安裝用螺絲對或轉換器不可阻礙或妨礙到行李箱裡面或底下的備用輪胎、遺具或其他器件。
- 為了安全起見，安裝時只能用本機附屬的遺具。
- 膠帶 Ⓕ 只可在暫時的安裝時使用。貼膠帶以前，請先把黏貼處擦乾淨。
- 安裝時只可使用附屬的螺絲釘安裝。

Do not make an inclined installation such as shown below.
N'installez pas l'appareil dans une position inclinée comme illustré ci-dessous.
No realice una instalación inclinada como se muestre a continuación.
不可如圖圖所示般把本機傾斜着擺放。

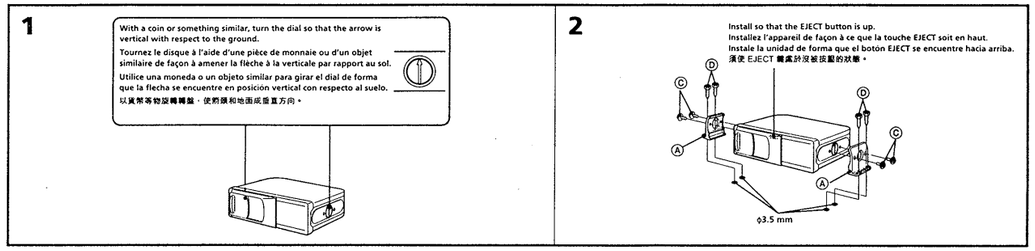

Do not install upside down. The eject button has to be up.
N'installez pas l'appareil à l'envers. La touche d'éjection doit se trouver en haut.
No la instale hacia abajo, ya que el botón de expulsión debe estar hacia arriba.
唱片轉換器不可上下顛反。EJECT 鍵必須處於上方才行。
EJECT

How to Install the Unit
Horizontal installation (Be sure to install so that the EJECT button is up.)

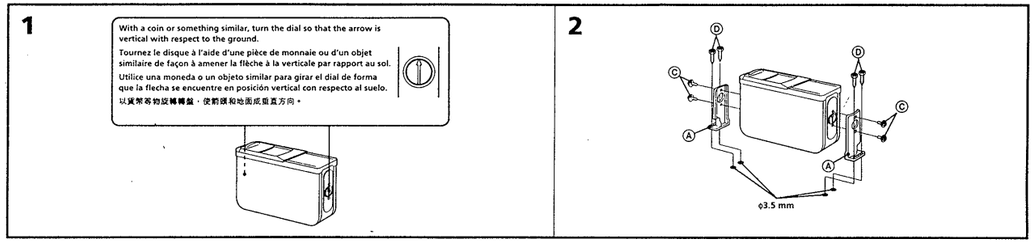
Installation de l'appareil
Installation horizontale (Installez l'appareil de façon à ce que la touche EJECT soit en haut.)

Instalación de la unidad
Instalación horizontal (Instálela de forma que el botón EJECT se encuentre hacia arriba.)

如何安裝
水平裝法（EJECT 鍵必須處於上方）


1
With a coin or something similar, turn the dial so that the arrow is vertical with respect to the ground.
Tournez le disque à l'aide d'une pièce de monnaie ou d'un objet similaire de façon à amener la flèche à la verticale par rapport au sol.
Utilice una moneda o un objeto similar para girar el dial de forma que la flecha se encuentre en posición vertical con respecto al suelo.
以貨幣等物旋轉轉盤，使箭頭和地面成垂直方向。
2
Install so that the EJECT button is up.
Installez l'appareil de façon à ce que la touche EJECT soit en haut.
Instale la unidad de forma que el botón EJECT se encuentre hacia arriba.
須使 EJECT 鍵處於按被設計的狀態。
D
C
A
ϕ3.5 mm

Vertical installation
Installation verticale
Instalación vertical
垂直裝法


1
With a coin or something similar, turn the dial so that the arrow is vertical with respect to the ground.
Tournez le disque à l'aide d'une pièce de monnaie ou d'un objet similaire de façon à amener la flèche à la verticale par rapport au sol.
Utilice una moneda o un objeto similar para girar el dial de forma que la flecha se encuentre en posición vertical con respecto al suelo.
以貨幣等物旋轉轉盤，使箭頭和地面成垂直方向。
2
D
C
A
ϕ3.5 mm

Suspended installation (Be sure to install so that the EJECT button is up.)

When the unit is to be installed under the rear tray etc. in the trunk room, be sure to make following provisions are made.
- Choose the mounting location carefully so that the unit can be installed horizontally.
- Make sure that the unit does not hinder the movement of the torsion bar spring etc. of the trunk lid.
- Do not use parts Ⓑ.

Installation suspendue (Installez l'appareil de façon à ce que la touche EJECT soit en haut.)

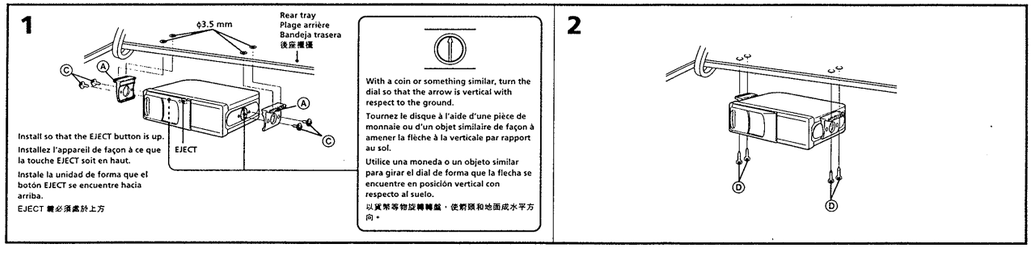
Si l'appareil doit être installé sous la plage arrière dans le coffre, par exemple, observer les précautions suivantes.
- Bien choisir l'emplacement pour pouvoir installer l'appareil à l'horizontale.
- Vérifier que l'appareil ne gêne pas les mouvements du ressort de fermeture du coffre, entre autres.
- N'utilisez pas les pièces Ⓑ.

Instalación suspendida (Instálela de forma que el botón EJECT se encuentre hacia arriba.)

Si va a instalar la unidad debajo de la bandeja trasera, etc., del maletero, tenga en cuenta lo siguiente:
- Elija el lugar de montaje cuidadosamente de forma que sea posible instalar la unidad horizontalmente.
- Asegúrese de que la unidad no dificulta el movimiento del muelle de la barra de torsión, etc., de la tapa del maletero.
- No utilice las piezas Ⓑ.

懸掛裝法（EJECT 鍵必須處於上方）

- 安裝唱片轉換器在如行李箱裡的後座擱板底下等處時，請注意下列幾點：
- 須選擇能使轉換器成水平狀態的位置安裝。
- 不可妨礙行李箱蓋子的轉矩彈簧之彈簧的操動。
- 不可使用 Ⓑ 部件。


1
ϕ3.5 mm
Rear tray
Plage arrière
Bandeja trasera
後座擱板
C
A
A
C
Install so that the EJECT button is up.
Installez l'appareil de façon à ce que la touche EJECT soit en haut.
Instale la unidad de forma que el botón EJECT se encuentre hacia arriba.
EJECT 鍵必須處於上方
EJECT
With a coin or something similar, turn the dial so that the arrow is vertical with respect to the ground.
Tournez le disque à l'aide d'une pièce de monnaie ou d'un objet similaire de façon à amener la flèche à la verticale par rapport au sol.
Utilice una moneda o un objeto similar para girar el dial de forma que la flecha se encuentre en posición vertical con respecto al suelo.
以貨幣等物旋轉轉盤，使箭頭和地面成水平方向。
2
D
D

In-cabin Installation

In some cars it is also possible to install the unit for instance under the rear seats or to other locations in the passenger's cabin.

Montage dans l'habitacle

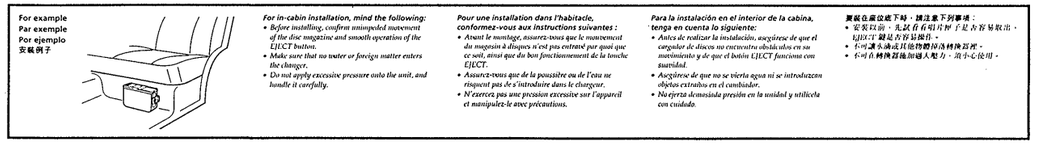
Sur certaines voitures, il est également possible de monter l'appareil sous la banquette arrière, par exemple, ou encore à d'autres endroits de l'habitacle.

Instalación en el interior de la cabina.

En algunos automóviles también es posible instalar la unidad debajo de los asientos traseros, por ejemplo, o en otro lugar del interior de la cabina de pasajeros.

座位底下裝法

有的汽車可以把唱片轉換器裝在後座位底下或乘客座位底下等處。


For example
Par exemple
Por ejemplo
安裝例子
For in-cabin installation, mind the following:
• Before installing, confirm unimpeded movement of the disc magazine and smooth operation of the EJECT button.
• Make sure that no water or foreign matter enters the changer.
• Do not apply excessive pressure onto the unit, and handle it carefully.
Pour une installation dans l'habitacle, conformez-vous aux instructions suivantes :
• Avant le montage, assurez-vous que le mouvement du magasin à disques n'est pas entravé par quoi que ce soit, ainsi que du bon fonctionnement de la touche EJECT.
• Assurez-vous que de la poussière ou de l'eau ne risquent pas de s'introduire dans le chargeur.
• N'exercez pas une pression excessive sur l'appareil et manipulez-le avec précautions.
Para la instalación en el interior de la cabina, tenga en cuenta lo siguiente:
• Antes de realizar la instalación, asegúrese de que el cargador de discos no encuentra obstáculos en su movimiento y de que el botón EJECT funciona con suavidad.
• Asegúrese de que no se vierta agua ni se introduzcan objetos extraños en el cambiador.
• No ejerza demasiada presión en la unidad y utilícela con cuidado.
裝載在座位底下時，請注意下列事項：
• 安裝以前，先試看看唱片匣子是否容易取出、EJECT 鍵是否容易操作。
• 不可讓水滴或任何物體掉落在轉換器裡。
• 不可在轉換器施加過大壓力，請小心使用。

Inclined installation

Five marks are above the left and right dials. After installing the unit, align the dials so with one of the marks that the arrows are as vertical as possible.

Installation inclinée

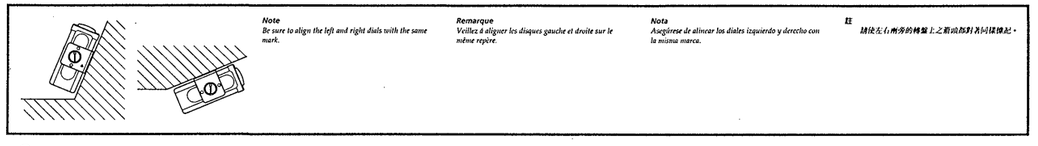
Cinq repères sont appusés au-dessus des disques gauche et droit. Après avoir installé l'appareil, alignez les disques sur un repère de façon à ce que les flèches soient dans la position la plus verticale possible.

Instalación inclinada

Existen cinco marcas en la parte superior de los diales izquierdo y derecho. Una vez instalada la unidad, alinee los diales de forma que una de las marcas de las flechas se encuentre en la posición más vertical posible.

傾斜裝法

左右兩旁的轉盤上面都各有5個標記。裝好以後，請旋轉轉盤以使箭頭對準其中的一個標記，而其向度能盡量和地面成垂直狀態。


Note
Be sure to align the left and right dials with the same mark.
Remarque
Veillez à aligner les disques gauche et droite sur le même repère.
Nota
Asegúrese de alinear los diales izquierdo y derecho con la misma marca.
註
請使左右兩旁的轉盤上之箭頭指對其同樣標記。

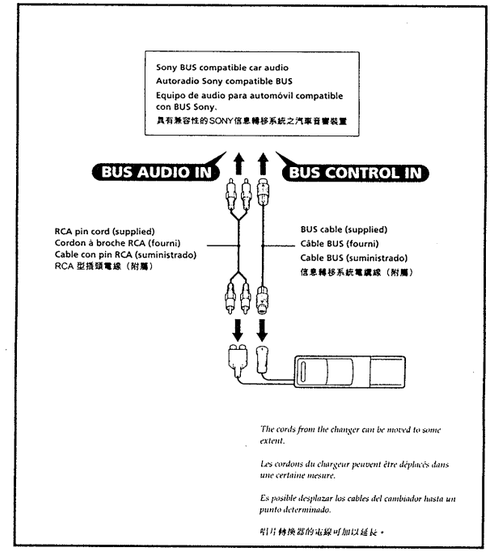
Connections/Connexions/Conexiones/連接

For details, refer to the Installation/Connections manual of the car audio.

Pour plus de détails, consulter le manuel d'installation/connexions de l'autoradio.

Para más información, consulte el manual de instalación/conexiones del equipo de audio para automóvil.

詳細，請參看汽車音響裝置的「安裝／線路之連接」說明書。



The cords from the changer can be moved to some extent.

Les cordons du changeur peuvent être déplacés dans une certaine mesure.

Es posible desplazar los cables del cambiador hasta un punto determinado.

唱片轉換器的電線可加以延長。

Precautions

Moisture condensation

On a rainy day or in a very damp area, moisture may condense on the lenses inside the unit. Should this occur, the unit will not operate properly. In this case, **remove the disc and wait for about an hour until the moisture has evaporated.**

Notes on the Disc Magazine

- Do not leave the disc magazine in locations with high-temperatures and high-humidity, such as on a car dashboard or at the rear window where the disc magazine will be subjected to direct sunlight.
- Do not insert more than one disc at a time into one slot, otherwise the changer and the discs may be damaged.
- Do not drop the disc magazine or subject it to a violent shock.

Inserting a Disc

Do not put your hand into the changer, you may get injured.

If the disc magazine does not lock properly

Take out the magazine, and after pressing the EJECT button, reinsert it.

Use the unit with the door closed

Otherwise, foreign matter may enter the unit and contaminate the lenses inside the changer.

Précautions

Remarque sur la condensation d'humidité

Par temps pluvieux ou dans une région très humide, de l'humidité peut se condenser sur les lentilles à l'intérieur de l'appareil. Dans ce cas, l'appareil ne fonctionne pas correctement. **Enlever le disque et attendre environ une heure que l'humidité s'évapore.**

Remarques sur le chargeur de disques

- Ne pas laisser le chargeur de disques dans un endroit très chaud ou très humide comme sur le tableau de bord ou sur la plage arrière de la voiture où il serait en plein soleil.
- Ne pas insérer plus d'un disque par fente sinon le changeur et les disques seront endommagés.
- Ne pas laisser tomber le chargeur de disques ni le cogner.

Introduction d'un disque

N'introduisez pas la main dans le changeur, car vous risque de vous blesser.

Si vous ne pouvez pas fermer le chargeur de disques

Sortez le chargeur et, après avoir appuyé sur la touche EJECT, réinsérez-le.

Utiliser cet appareil avec la trappe fermée

Sinon, des corps étrangers pourraient pénétrer dans l'appareil et encrasser les lentilles dans le lecteur.

Precauciones

Condensación de humedad

Es posible que se condense humedad en las lentes del interior de la unidad en un día lluvioso o en una zona muy húmeda. Si esto ocurre, la unidad no funcionará correctamente. En este caso, extraiga el disco y espere durante una hora aproximadamente hasta que se evapore la humedad.

Notas sobre el cargador de discos

- No lo deje en lugares muy húmedos o con temperaturas altas, como en el salpicadero del automóvil o en la ventanilla trasera, expuesto a la luz solar directa.
- Inserte un solo disco en una ranura, ya que pueden dañarse el cambiador y los discos.
- No lo deje caer ni lo exponga a golpes violentos.

Inserción de discos

No introduzca la mano en el cambiador, ya que puede herirse.

Si el cargador de discos no se cierra correctamente

Extraiga el cargador, pulse el botón EJECT y vuelva a insertarlo.

Emplee la unidad con la puerta cerrada

De no ser así, es posible que se introduzcan objetos extraños y ensucien las lentes del interior del cambiador.

使用前須知事項

關於結露

在雨天或極其潮濕的地方使用本機時，機內的透鏡會凝結水滴，致使本機不能正常工作。遇此情形發生，請把雷射唱片拿出機外約1小時左右，直到機內水分蒸發，乾燥為止。

使用唱片匣時的注意事項

- 不可把唱片匣放在高溫或多濕的地方，如汽車儀表板上或汽車後座欄檯上，以免唱片匣受到陽光直接照射。
- 不可在一個唱片匣層裡插入一張以上的唱片，否則唱片轉換器以及唱片都將破損。
- 不可讓唱片匣摔到地上或受到大衝擊。

唱片裝法

不可把手伸入轉換器裡，以免手被夾住。

若唱片匣不能牢固插入音響裝置裡

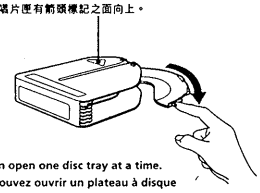
請取出唱片匣，按壓 EJECT 鍵，然後再插入看看。

唱機操作時必須把蓋子關好

以免異物混入機內或弄髒轉換器的透鏡。

1

With the arrow side of the disc magazine facing up.
Le côté du chargeur à disques portant la flèche doit être orienté vers le haut.
Con el lado de la flecha del cargador de discos hacia arriba.
使唱片匣有箭頭標記之面向上。



You can open one disc tray at a time.
Vous pouvez ouvrir un plateau à disque à la fois.
No es posible abrir más de una bandeja de discos al mismo tiempo.
一次只可以拉開一層唱片托盤。

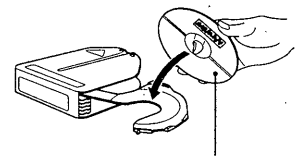
Note
To prevent discs from falling out and possibly becoming damaged, the disc trays can not be opened when the disc magazine is up-side down. Furthermore, you can not open two or more disc trays at the same time.

Remarque
Pour éviter que les disques tombent et soient ainsi endommagés, les plateaux à disques ne peuvent être ouverts lorsque le magasin à disques est à l'envers. De plus, il ne vous est pas possible d'ouvrir simultanément deux ou plusieurs plateaux à disques.

Nota
Para evitar que los discos se caigan y resulten dañados, las bandejas de discos no pueden abrirse si el cargador se encuentra hacia abajo. Además, no es posible abrir dos o más bandejas de discos a la vez.

註
為避免唱片掉下來或受到任何損傷，當唱片匣上下裝反了，托盤便拉不開。
又，一次不能同時拉出2個或2個以上的托盤。

2



Place the disc, label side down, into the tray.
Placez le disque sur le plateau avec la face imprimée vers le bas.
Coloque el disco en la bandeja con el lado de la etiqueta hacia abajo.
把唱片放在托盤上，放時須使標簽之面向下。

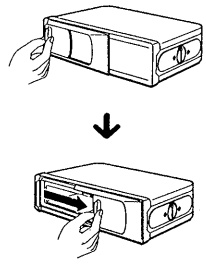
Notes
- *To listen to an 8 cm (3-in.) CD, use the separately sold Sony CD adapter CSA-8. Be sure to always use the specified adapter, as failing to do so may cause a malfunction of the unit. If you use any other adapter, the unit may not operate properly. When using the sony CD adapter, make sure that the three catches on the adapter are firmly latched onto the 8 cm CD.*
- *Do not operate the unit with only the Sony CD adapter CSA-8 in the magazine; malfunction may result.*

Remarques
- *Pour écouter un disque de 8 cm (3 po.), utilisez l'adaptateur Sony CSA-8, vendu séparément, à l'exclusion de tout autre, pour éviter tout problème de fonctionnement. Si vous utilisez un autre adaptateur, l'appareil risque de ne pas fonctionner correctement. Quand vous utilisez l'adaptateur CD Sony, vérifiez que les trois griffes soient bien en prise sur le CD de 8 cm.*
- *Ne faites pas fonctionner l'appareil lorsque le magasin contient uniquement l'adaptateur de CD Sony CSA-8, car vous risquez de provoquer un dysfonctionnement.*

Notas
- *Para escuchar un disco compacto de 8 cm. (3 pulgadas), utilice el adaptador de discos compactos Sony CSA-8, que podrá adquirir por separado. Asegúrese de utilizar siempre el adaptador especificado, ya que si utiliza otro tipo de adaptador es posible que la unidad no funcione correctamente. Al utilizar el adaptador de discos compactos Sony, asegúrese de que los tres enganches del adaptador estén firmemente ajustados al disco compacto de 8 cm.*
- *No emplee la unidad únicamente con el adaptador de discos compactos Sony CSA-8 en el cargador, ya que puede producirse un funcionamiento defectuoso.*

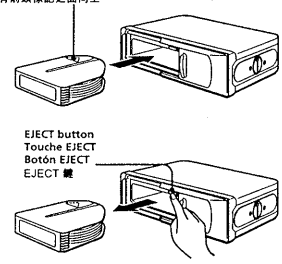
註
- *要收聽 8cm (3-in.) 的雷射唱片時，請使用另售品的 SONY CSA-8 小型唱片固定器。切記固定器只能使用本書所指定的，否則會使本機發生故障，或不能正常操作。使用 SONY 的唱片固定器時，須使固定器的3個簧片牢固卡住 8cm 唱片。*
- *若唱片匣裏只放著 SONY 小型唱片轉換器 CSA-8 時不可操作本機，否則會引起故障。*

3

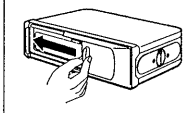


4

With the arrow side of the disc magazine facing up.
Le côté du chargeur à disques portant la flèche doit être orienté vers le haut.
Con el lado de la flecha del cargador de discos hacia arriba.
使唱片匣有箭頭標記之面向上。



5



Note
When a disc magazine is inserted into the CD changer or the reset button of the connected car audio is pressed, the unit will be automatically activated and read the information of the CDs. When the information of all the CDs in the disc magazine has been read, the unit will automatically stop the operation.

Remarque
Quand un chargeur de disques est inséré dans le changeur de CD ou si la touche de réinitialisation de l'autoradio raccordé est enclenchée, l'appareil se met automatiquement en marche et reproduit les CD. Lorsque tous les CD du chargeur ont été reproduits, l'appareil s'arrête automatiquement.

Nota
Si se inserta un cargador de discos en el cambiador de discos compactos, o si está pulsado el botón de reposición del equipo de audio para automóvil conectado, la unidad se activará automáticamente y leerá la información de los discos compactos. Una vez leída la información de todos los discos compactos del cargador de discos, la unidad detendrá automáticamente la operación.

註
當唱片匣插入轉換器裡時，或所連接着的汽車音響裝置的重整鍵被按下，汽音響裝置便接通電源，並自動讀取唱片裡的數據。當唱片匣裡的所有唱片之數據都讀取完畢，音響裝置便停止操作。

This way
Oui
Así
正確拿法

Notes on Compact Discs

A dirty or defective disc may cause sound drop-outs during playback. To enjoy optimum sound, handle the disc as follows.

Handle the disc by its edge, and to keep the disc clean, do not touch the surface which has no label.

Remarques sur les disques compacts

Un disque sale ou défectueux peut provoquer des pertes de son à la lecture. Manipuler le disque comme suit pour obtenir un son optimal.

Tenir le disque par son arête et ne pas toucher la surface non imprimée.

Notas sobre discos compactos

Es posible que se produzca ausencia de sonido durante la reproducción, si el disco está sucio o es defectuoso. Para disfrutar de una calidad de sonido óptima, utilice el disco de la siguiente forma.

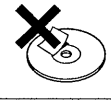
Coja el disco por los bordes y para mantenerlo limpio, no toque la superficie sin etiqueta.

使用雷射唱片時的注意事項

唱片髒了或有缺損，在播放之中會引起聲音跳音。為要獲得最佳音響，請注意下列事項。

唱片請拿住邊緣，要保持唱片清潔，不可觸摸貼有標簽的唱片表面。

Not this way
Non
Así no
不行



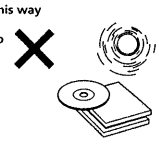
Do not stick paper or tape on the labeled surface.

Ne pas coller de papier ni de ruban adhésif sur la surface imprimée.

No adhiera papel ni cinta adhesiva sobre la superficie con etiqueta.

不可在唱片表面黏貼紙張。

Not this way
Non
Asi no
不行



Do not expose the discs to direct sunlight or heat sources such as hot air-ducts, or do not leave it in a car parked in direct sunlight where there can be a considerable rise in the temperature inside the car.

Ne pas laisser les disques en plein soleil ou près d'une source de chaleur comme un conduit d'air chaud, ni dans une voiture garée en plein soleil car la température de l'habitacle risque d'augmenter considérablement.

No exponga los discos a la luz solar directa ni a fuentes térmicas como conductos de aire caliente; no los deje en un automóvil aparcado bajo la luz solar directa, ya que puede producirse un considerable aumento de temperatura en el interior del automóvil.

不要把唱片放在易受陽光直接照射，或暖氣機前等高溫之處，也不可放在陽光底下的停車場之汽車裡，因為車內溫度將極其高升。

Before playing, clean the discs with an optional cleaning cloth. Wipe each disc in the direction of the arrows.

Do not use solvents such as benzine, thinner, commercially available cleaners or antistatic spray intended for analog discs.

Avant la lecture, essuyer les disques avec un chiffon de nettoyage en option. Essuyer chaque disque dans le sens des flèches.

Ne pas utiliser de solvants tels que de la benzine, du diluant, de produits de nettoyage vendus dans le commerce ou de vaporisateurs anti-statiques destinés aux disques analogiques.

Antes de la reproducción, limpie los discos con un paño de limpieza opcional en la dirección de las flechas.

No utilice disolventes como bencina, diluyentes, productos de limpieza disponibles en tiendas del ramo ni aerosoles antiestáticos destinados a discos analógicos.

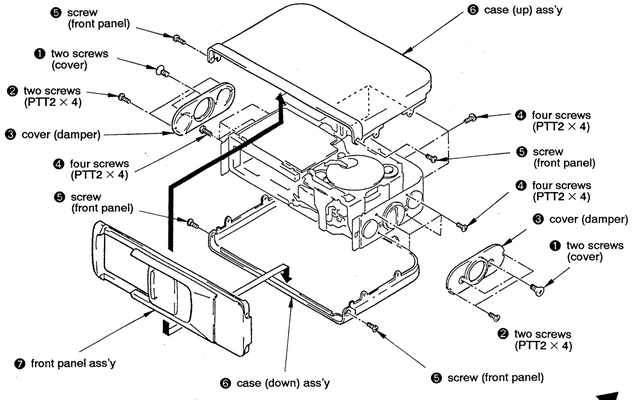
播放以前，請先以另售品的擦拭用抹布擦拭一次。擦時，要由內向外擦去。

擦唱片時，不可使用如揮發性油脂、稀釋液等溶劑，或一般市面上販賣的清潔劑或留聲機唱片用的抗靜電噴霧劑等。

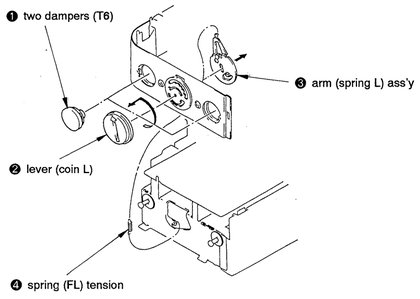
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

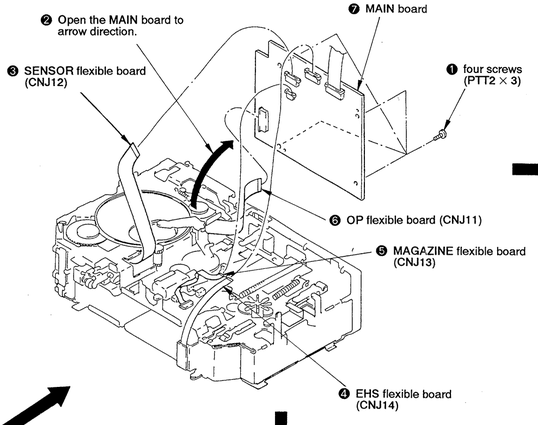
CASE, FRONT PANEL ASS'Y


❺ screw (front panel)
❶ two screws (cover)
❷ two screws (PTT2 × 4)
❸ cover (damper)
❹ four screws (PTT2 × 4)
❺ screw (front panel)
❻ case (up) ass'y
❹ four screws (PTT2 × 4)
❺ screw (front panel)
❹ four screws (PTT2 × 4)
❸ cover (damper)
❶ two screws (cover)
❷ two screws (PTT2 × 4)
❼ front panel ass'y
❻ case (down) ass'y
❺ screw (front panel)

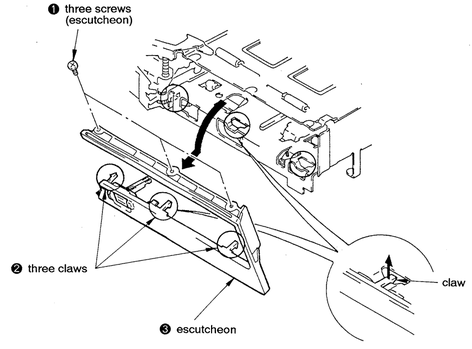
CASE (MD) ASS'Y



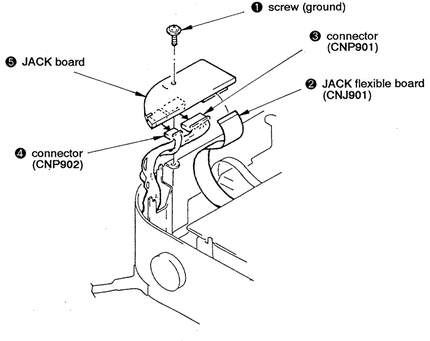
MAIN BOARD

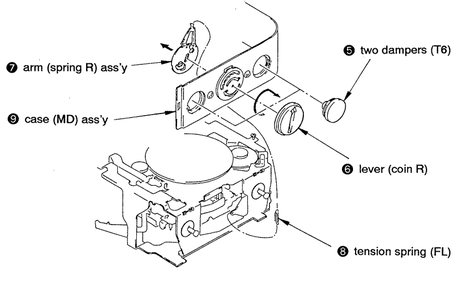

❷ Open the MAIN board to arrow direction.
❼ MAIN board
❸ SENSOR flexible board (CNJ12)
❶ four screws (PTT2 × 3)
❻ OP flexible board (CNJ11)
❺ MAGAZINE flexible board (CNJ13)
❹ EHS flexible board (CNJ14)

ESCUTCHEON

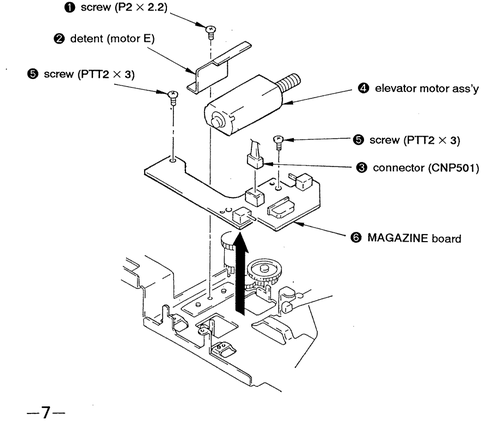


JACK BOARD

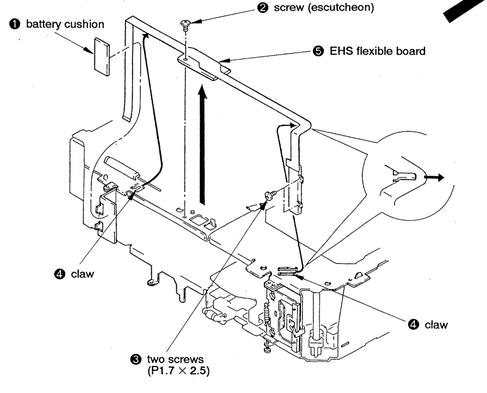




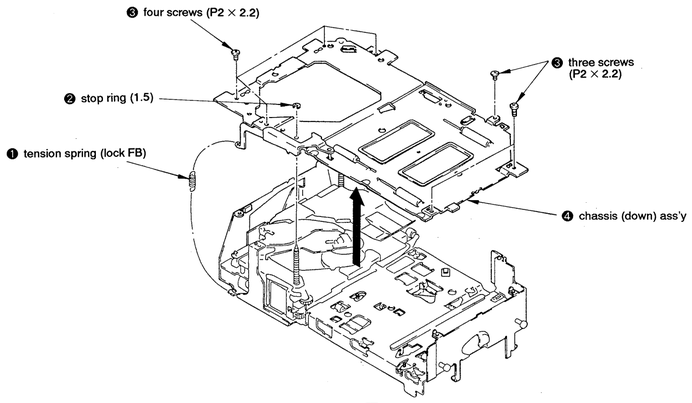
ELEVATOR MOTOR ASS'Y (M601), MAGAZINE BOARD



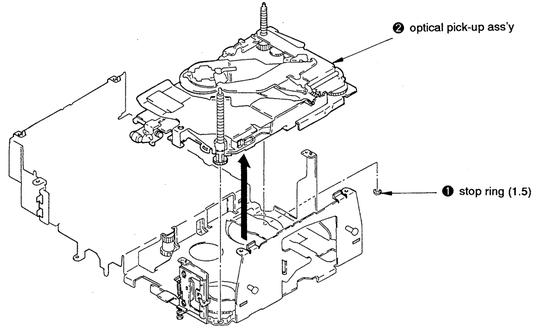
EHS FLEXIBLE BOARD



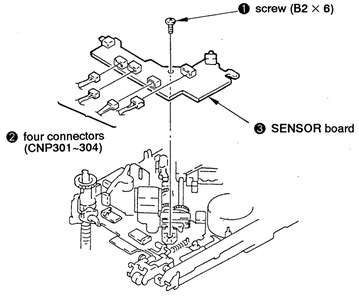
CHASSIS (DOWN) ASS'Y



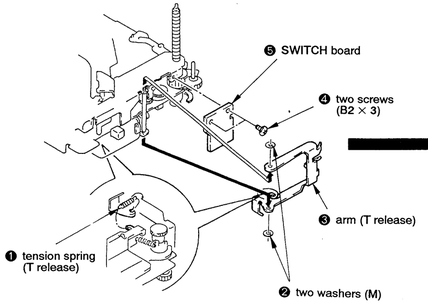
OPTICAL PICK-UP ASS'Y



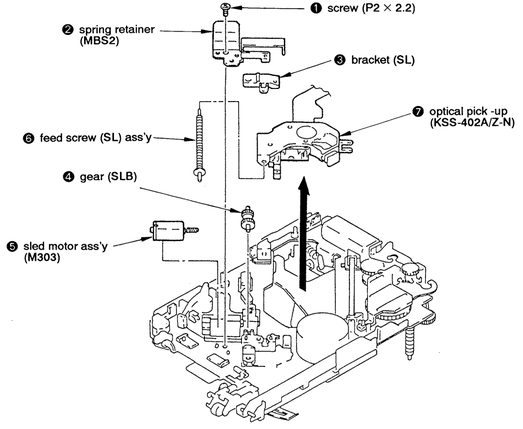
SENSOR BOARD



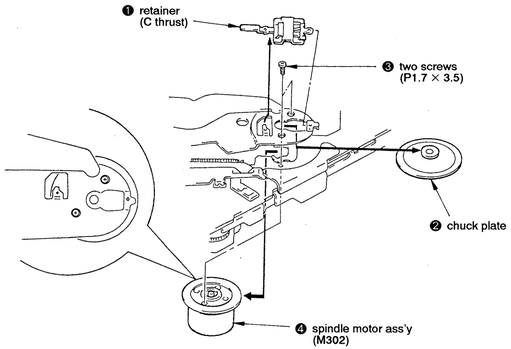
SWITCH BOARD



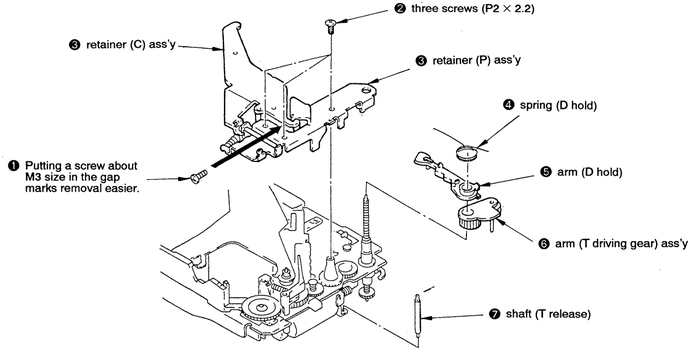
SLED MOTOR ASS'Y (M303), OPTICAL PICK-UP (KSS-402A/Z-N)


❶ screw (P2 × 2.2)
❷ spring retainer (MBS2)
❸ bracket (SL)
❼ optical pick -up (KSS-402A/Z-N)
❻ feed screw (SL) ass'y
❹ gear (SLB)
❺ sled motor ass'y (M303)

SPINDLE MOTOR ASS'Y (M302)



RETAINER (P), ARM (T DRIVING GEAR) ASS'Y

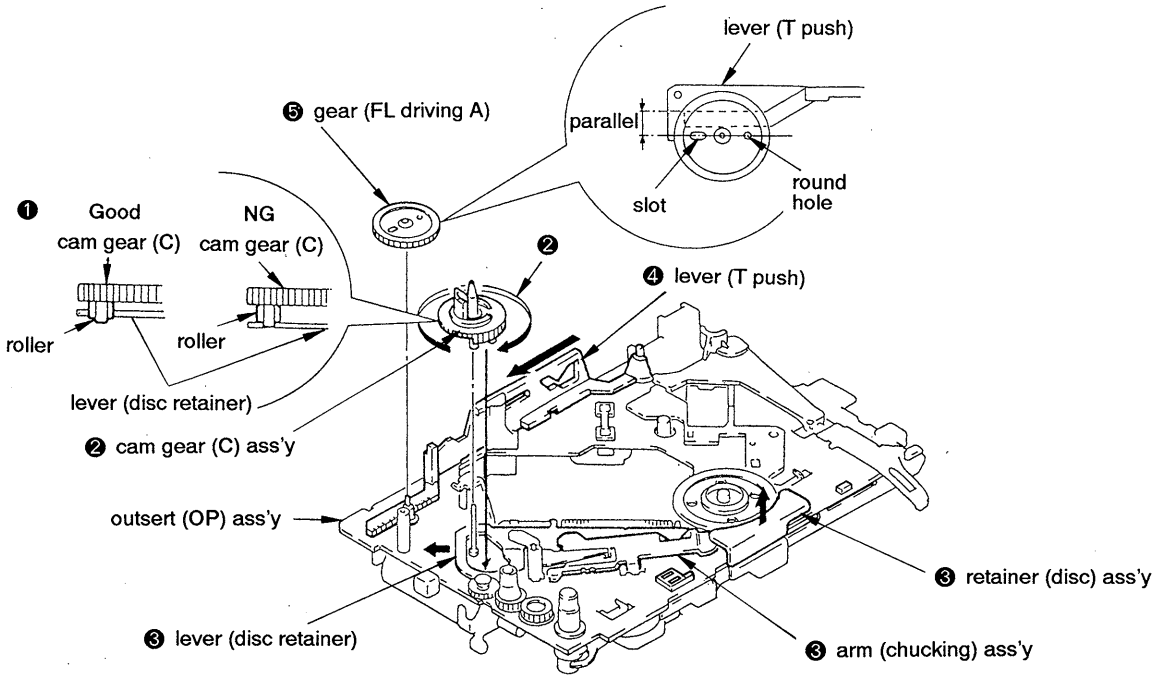

❷ three screws (P2 × 2.2)
❸ retainer (C) ass'y
❸ retainer (P) ass'y
❹ spring (D hold)
❶ Putting a screw about M3 size in the gap marks removal easier.
❺ arm (D hold)
❻ arm (T driving gear) ass'y
❼ shaft (T release)

SECTION 3
INSTALLATION

Note: Follow the assembly procedure in the numerical order given.

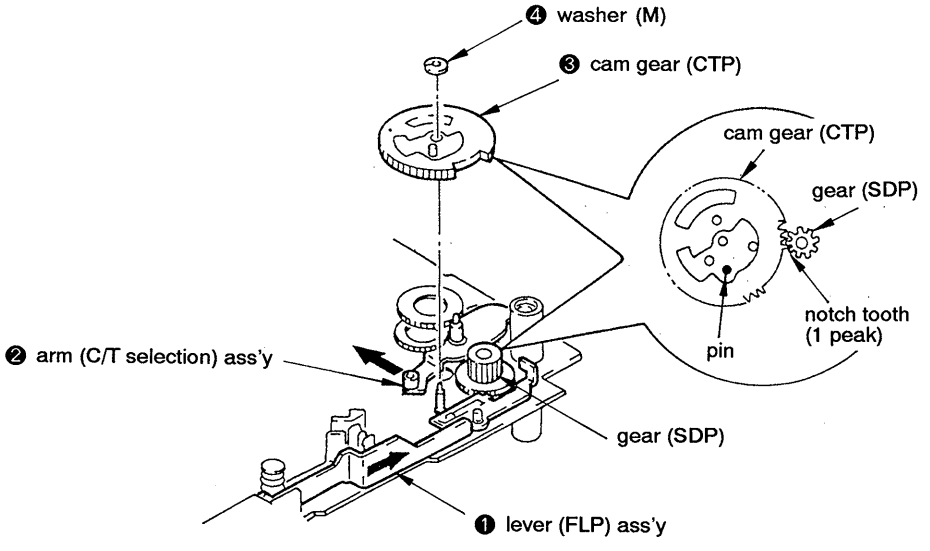
CAM GEAR (C) ASS'Y, GEAR (FL DRIVING A)

❶ Install the cam gear (C) ass'y.
(The cam gear (C) roller must securely enter the irregularly shaped hole in the lever (disc retainer).)
❷ Turn the cam gear (C) ass'y all the way clockwise.
❸ Check that the lever (disc retainer) and arm (chucking) ass'y each move in the direction of the arrow (with the retainer (disc) ass'y up in the direction of the arrow.)
❹ Slide the lever (T push) all the way in the direction of the arrow.
❺ Install the gear (FL drive A) so that the extension line between the gear (FL driving A) slot ⬭ and round hole ○ is parallel with the level (T push).
Rotate the gear (FL driving A) and check that it meshes.



CAM GEAR (CTP)

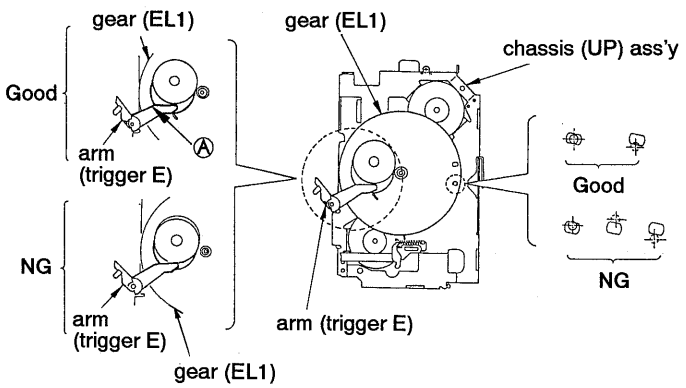
❶ Slide the lever (FLP) ass'y all the way in the arrow direction.
❷ Move the arm (C/T selection) ass'y in the arrow direction.
❸ Install the cam gear (CTP) with its notch tooth (1 peak) section and the gear (SDP) meshing.
Rotate the cam gear (CTP) 1/4 turn to check that it operates without catching or other obstruction.
❹ Install the reel stopper.

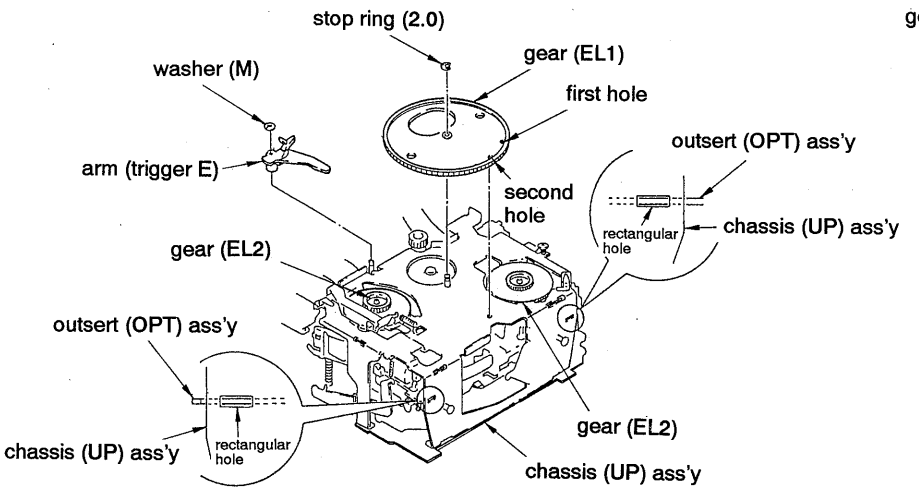


SECTION 4
MECHANICAL ADJUSTMENTS

ELEVATOR HEIGHT ADJUSTMENT
(Elevator Address 1 Adjustment)

1. Remove the arm (trigger E) and gear (EL1).
2. Turning the two gears (EL2) changes the elevator height. Turn the two gear (EL2) together and align the center of the rectangular hole of the chassis (FA) ass'y with the outsert (OPT) ass'y. (Elevator Address 1 adjustment)
   * The left side gear (EL2) is harder to turn than the right side gear (EL2), so use some strength tuning it.
3. Without moving the two gear (EL2), install the gear (EL1) so that the second hole on the gear (EL1) is aligned with the hole in the chassis (FA) ass'y.
4. Install the arm (trigger E) so that arm (trigger E) Ⓐ section is directly above the hole in the gear (EL1).



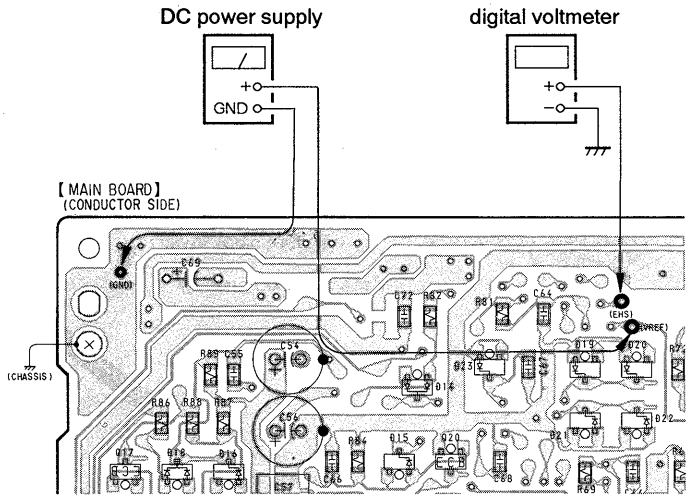


LINEAR POSITION SENSOR ADJUSTMENT

Note:

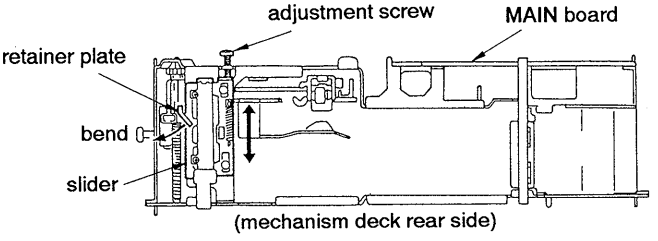
1. When the elevator height is adjusted as part of any repairs, the linear position sensor (RV601) must be adjusted.
   This adjustment is for absorbing the variation in the performance of the RV601 parts and is not a mechanical deck adjustment.
   Therefore, this adjustment is only carried out when the mechanical deck elevator height adjustment (Address 1 adjustment) is made.
2. Never supply power to the set main unit during this adjustment. (Have the bus cable disconnected.)

Setting:



Adjustment method:

1. Extend the plate holding down the RV601 slider with radial pliers to free the slider.
2. Connect the TP (VREF) on the main board to a DC power supply.
3. Connect a digital voltmeter to the MAIN board TP (EHS).



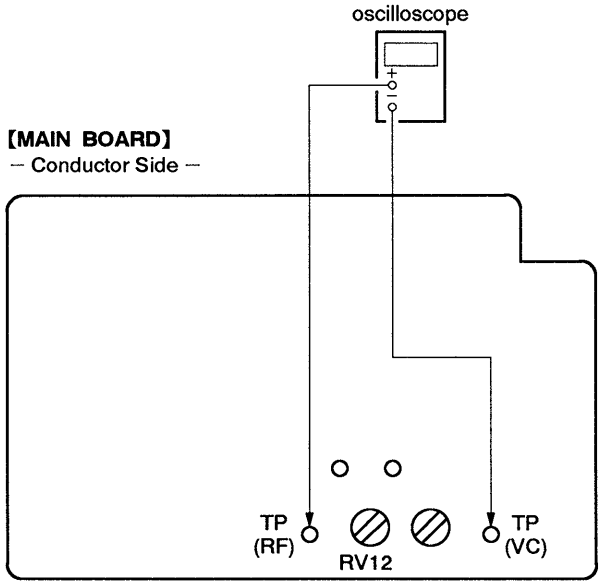
4. Supply 5.00 ± 0.01 V power from the DC power supply to the TP (VREF).
5. Turn the adjustment screw so that the digital voltmeter reads 4.030 ± 0.02 V.
6. After the adjustment, disconnect the stabilized power supply and the digital voltmeter.
7. Apply the power supply to the set main unit, insert the magazine, operate, and check that there is no address deviation.
8. Bend the retainer plate back the way it was originally.
9. Apply suitable locking compaund to the adjustment screw.
   * After adjusting the linear position sensor (RV601), put in the magazine and operate. If address deviation is found, recheck the elevator height adjustment (Elevator Address 1 adjustment). The following causes are possible.
     Examples:
     - The mechanical deck gear (TDFP) and magazine gear teeth are not meshing.
     - During ejection, the gear (EL1) was not in the prescribed position.
     - After magazine ejection was carried out five times, the magazine lock was unlocked.

SECTION 5
ELECTRICAL ADJUSTMENTS

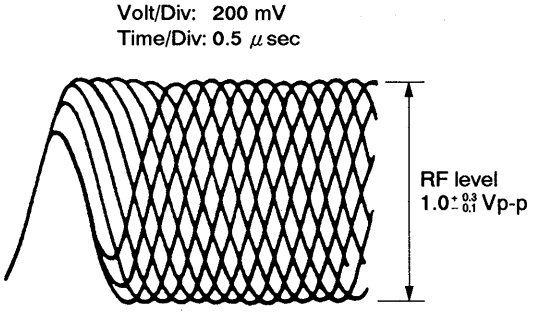
1. Perform adjustments as given.
2. Be sure to use the disc "YEDS-18" parts code: 3-702-101-01, but only when indicated.
3. Power supply voltage: DC14.4 V (more than 3A).

Focus Bias Adjustment

Procedure:

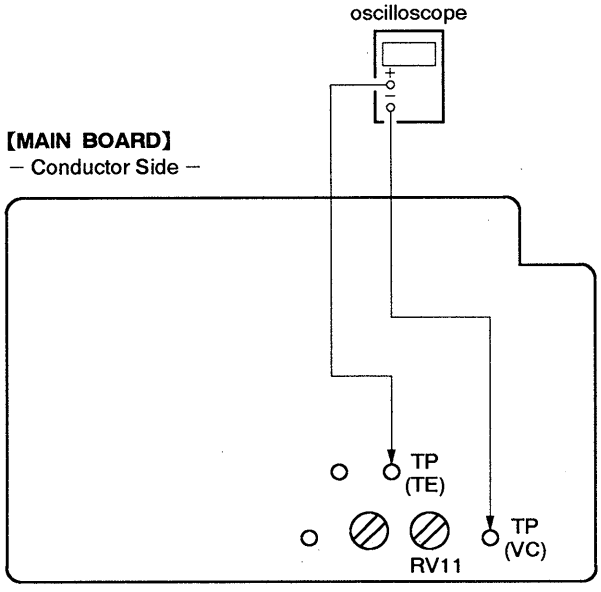


1. Connect the oscilloscope to MAIN board test point RF.
2. Put the set into play mode by loading the disc.
3. Adjust RV12 (MAIN board) so that the oscilloscope. Waveform eye pattern is good.
   (A good eye pattern means that the diamond shape (◇) in the center of the oscilloscope can be clearly distinguished.)



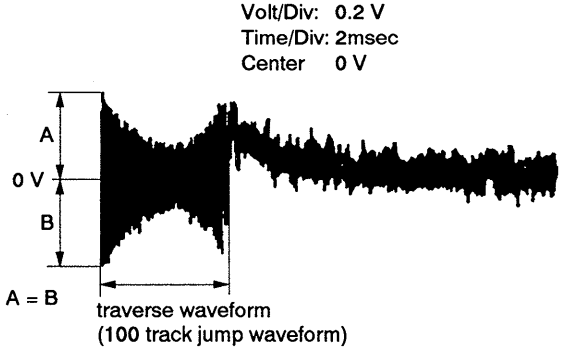
Tracking Offset Adjustment

Procedure:



1. Connect the oscilloscope to MAIN board test point TE.
2. Put the set into play mode by loading the disc.
3. Press the ⏮ AMS ⏭ button, then, check the traverse waveform*.
4. Adjust RV11 (MAIN board) so that oscilloscope reading is symmetrical in relation to 0 V.

*Traverse waveform: This is the tracking error waveform appears when crossing the track.



SECTION 6
DIAGRAMS

6-1. IC PIN FUNCTION DESCRIPTION

IC14 CXP84332-030Q (SYSTEM CONTROLLER) (MAIN BOARD)

Pin No.	Pin Name	I/O	Function
1 – 5	–	–	Not used
6	D.TRAY	I	Disc and tray sensor input "L": disc or tray on
7	$\overline{\text{END.SW}}$	I	Tray movement end detect switch input "L": load or save on
8	CH.F	O	Chucking motor control signal output
9	CH.R	O	Chucking motor control signal output
10	ELV.F	O	Elevator motor control signal output
11	ELV.R	O	Elevator motor control signal output
12	ELV.ON	O	Mecha. system power supply control signal output "H": on
13	CDRST	O	Servo system reset signal output "L": on
14	CDON	O	Servo system power supply control signal output "L": on
15	$\overline{\text{APC}}$	O	Laser diode on/off control signal output "L": on
16	A-MUTE	O	Audio output muting on/off control signal output "H": mute on
17	EMPH	O	Emphasis control signal output "H": emphasis on
18	A.OUT	I	Function setting (Connected to GND)
19	D.OUT	I	Function setting (Connected to GND)
20	EEPROM	I	Function setting (Connected to GND)
21	–	–	Not used
22	XWRE	O	DRAM write enable signal output
23	XRDE	O	DRAM read enable signal output
24	XQOK	O	Sub-code Q OK signal output
25	GRSRST	O	"H" output on track jump
26	ESPXLT	O	Serial data latch signal output "⌐↓_": latch
27	XSOE	O	Serial data signal output
28	SDTI	I	Serial data signal input
29	–	–	Not used
30	$\overline{\text{RESET}}$	I	System reset signal input "L": reset
31	EXTAL	I	System clock input (8 MHz)
32	XTAL	O	System clock output (8 MHz)
33	VSS	–	GND
34	TX	O	Timer counter clock output (32 kHz) (Not used)
35	TEX	I	Timer counter clock input (32 kHz) (Not used)
36	AVSS	–	GND (A/D converter)
37	AVREF	I	Standard voltage input (A/D converter)
38	TEMP.H	I	Temperature detection for servo temperature compensation
39	TEMP.L	–	Not used
40	EHS	I	Elevator height detection voltage input
41 – 45	–	–	Not used
46	GRSCOR	I	Sub-code sync detection of x'tal precision adsorbs from jitter margin
47	–	–	Not used

	FWD	REV	Brake
CH.F	H	L	H
CH.R	L	H	H

Forward: Load chucking
Reverse: Save

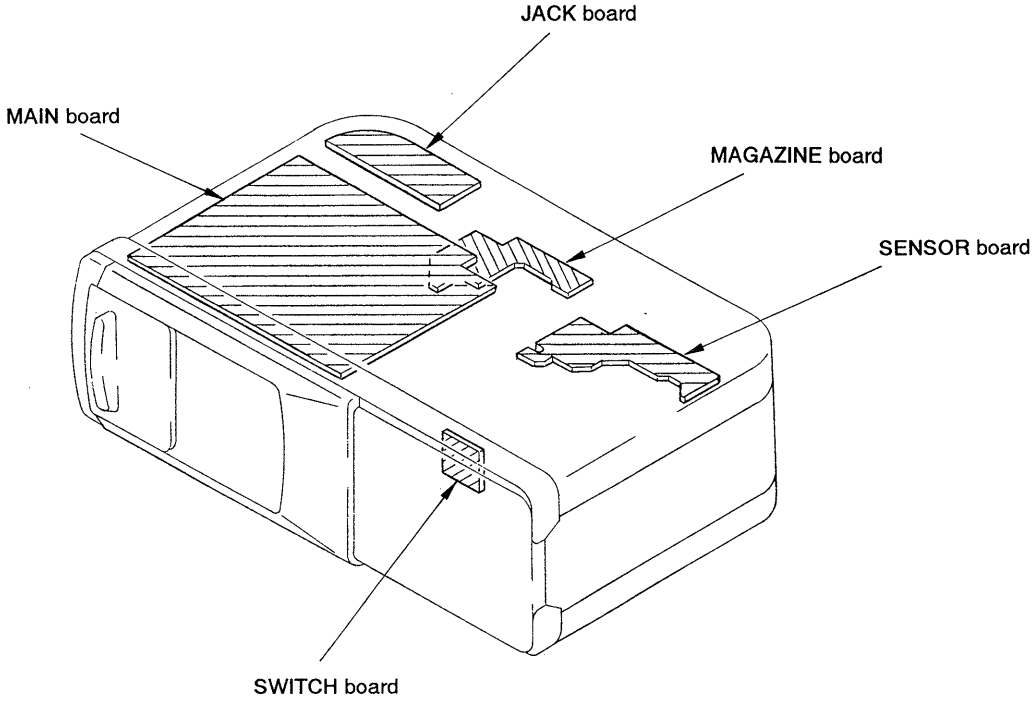
	FWD	REV	Brake
ELV.F	H	L	H
ELV.R	L	H	H

Forward:
Address up (① → ⑥)
Reverse:
Address down (⑥ → ①)

	YES	NO
ANALOG OUT	L	H
DIGITAL OUT	H	L
EEPROM (E^2PROM)	L	H

Pin No.	Pin Name	I/O	Function
48	SCK	I	Serial clock signal input
49	SI	I	Serial data signal input
50	SO	O	Serial data signal output
51	SQCLK	O	Sub-code Q data read clock signal output to DSP
52	SUBQ	I	Sub-code Q data signal input from DSP
53	–	–	Not used
54	–	–	Not used
55	D.O.ON/OFF	I	On/off control for digital output "L": off (Connected to GND)
56	SCOR	I	Sub-code sync detection signal input from DSP
57 – 59	–	–	Not used
60	EJTKEY	I	Eject key input "H": eject on
61	BUCHECK	I	Back-up detection input "H": back-up on
62	BUSON	I	Bus on control input "H": bus on
63	$\overline{\text{MAG.SW}}$	I	Magazine in/out detect switch input "L": magazine in
64	EEDATA	I/O	E^2PROM data signal input/output
65	EECLK	O	Clock signal output to E^2PROM
66	EEINIT	I	Initialize signal input from E^2PROM "L": E^2PROM initialize
67	$\overline{\text{PGM}}$	I	Program play on/off setting "L": on (Connected to GND)
68	$\overline{\text{SINGLE}}$	I	Single play mode setting "L": on
69	FOK	I	Focus OK signal input from DSP
70	GFS	I	Guarded frame sync input from DSP
71	SENSE	I	Sense signal input from DSP
72	VDD	–	Power supply
73	NC	–	Connected VDD
74	CDCLK	O	Serial data transmission clock signal output
75	CDXLT	O	Latch signal output
76	CDDATA	O	Serial data signal output
77	SCLK	O	Clock for serial communication output
78	$\overline{\text{POS.SW}}$	I	Magazine eject end detect switch input "L": eject on
79	$\overline{\text{CHK.SW}}$	I	Chucking movement end detect switch input "L": chucking on
80	$\overline{\text{DISC.SW}}$	I	Disc in/out detect switch input "L": disc on

- **Circuit Boards Location**



SEE ADDITIONAL INFORMATION

6-2. PRINTED WIRING BOARDS • See page 18 for Circuit Boards Location.

• **Semiconductor Location**

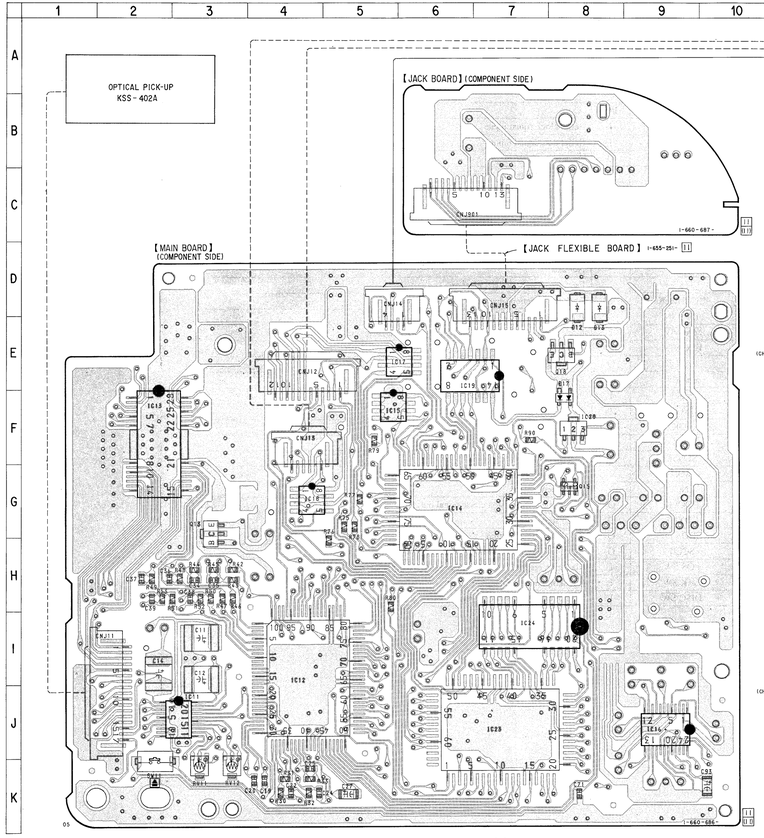
Ref. No.	Location
D12	D-8
D13	D-8
D14	E-13
D15	F-13
D16	F-12
D17	F-8
D18	F-12
D19	E-15
D20	E-15
D21	E-15
D22	E-15
D23	E-14
D601	C-25
IC11	J-3
IC12	I-4
IC13	F-2
IC14	G-6
IC15	F-5
IC16	J-9
IC17	E-6
IC18	G-4
IC19	E-6
IC20	F-8
IC21	H-12
IC22	H-11
IC23	J-7
IC24	I-7
Q11	I-19
Q12	G-17
Q13	G-3
Q14	F-16
Q15	G-8
Q16	F-12
Q17	F-11
Q18	E-8
Q19	F-13
Q20	F-14
Q91	H-12
Q92	I-12
Q101	H-11
Q201	I-11
Q501	B-24

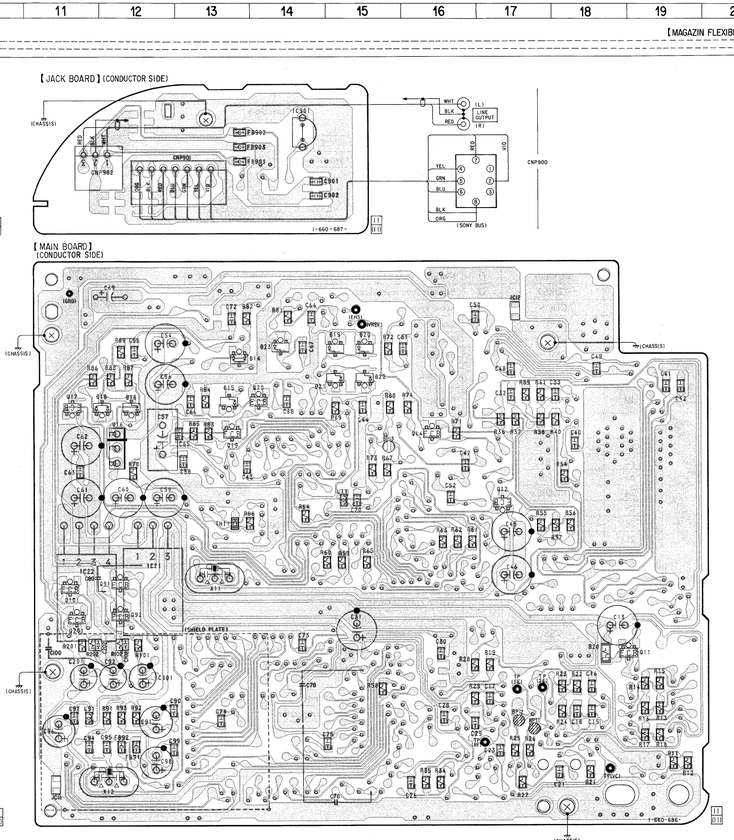
Note:

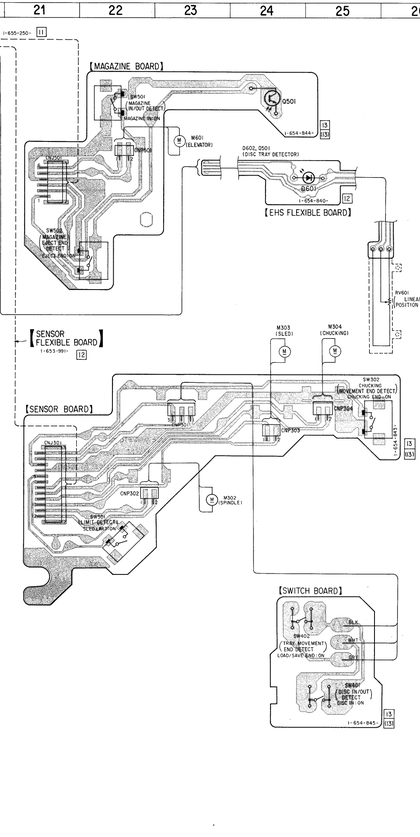
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

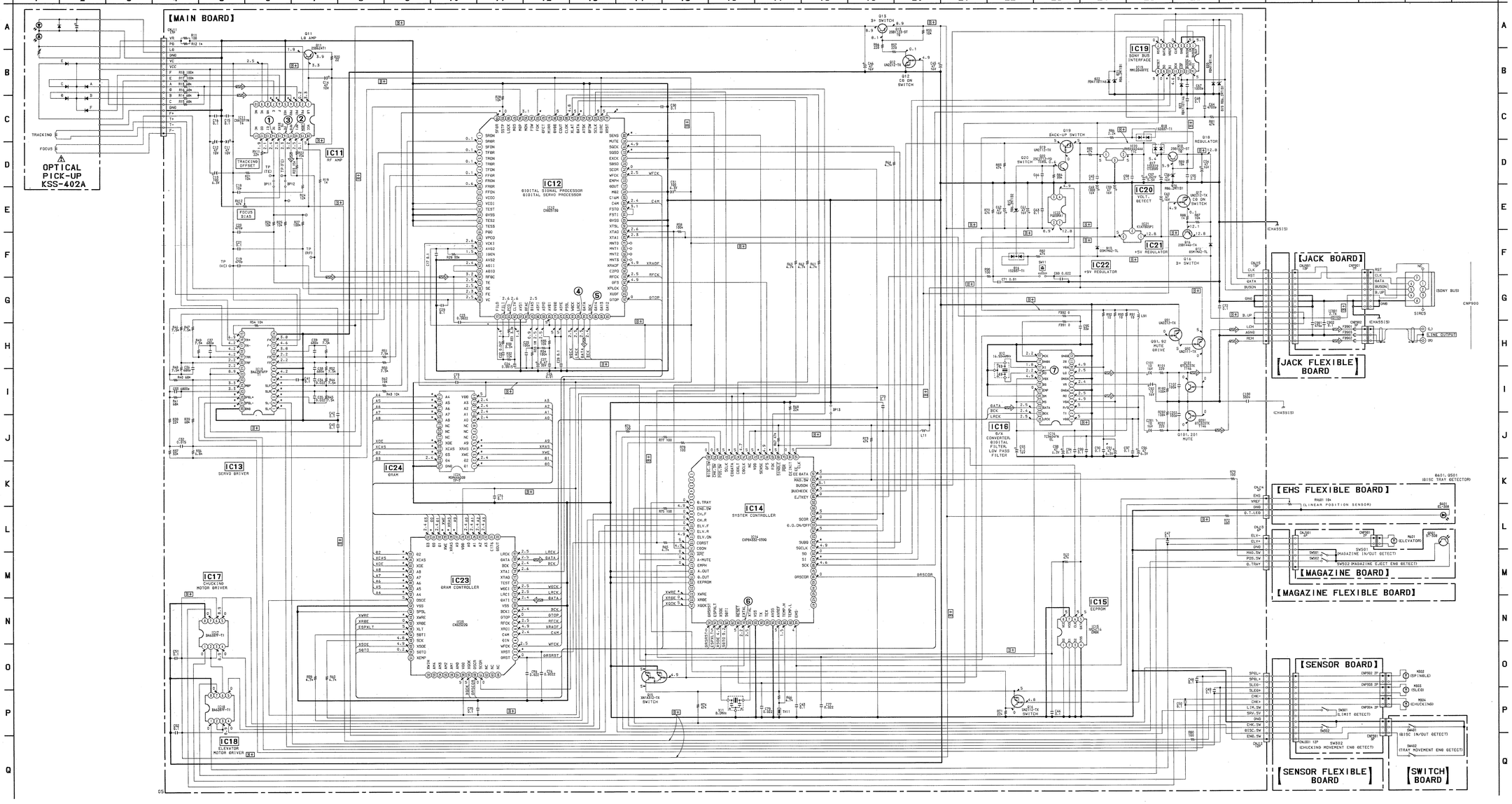






6-3. SCHEMATIC DIAGRAM • See page 27 for Waveforms and IC Block Diagrams.

SEE ADDITIONAL INFORMATION



Note:

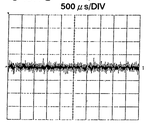
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.

Note:	Note:
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

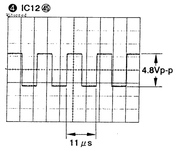
- B+ : B+ Line.
- : panel designation.
- : adjustment for repair.
- Power voltage is dc 14.4 V and fed from CD changer controller.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD

• Waveforms

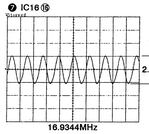
❶ IC11 ⑭ 200mV/DIV 500 μs/DIV



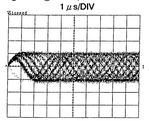
❹ IC12 ㉕ 4.8Vp-p 11 μs



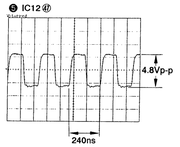
❼ IC16 ⑮ 2.4Vp-p 16.9344MHz



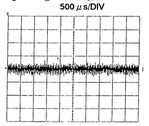
❷ IC11 ⑰ 0.5V/DIV 1 μs/DIV



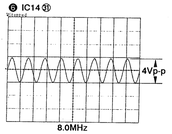
❺ IC12 ㉗ 4.8Vp-p 240ns



❸ IC11 ⑱ 200mV/DIV 500 μs/DIV



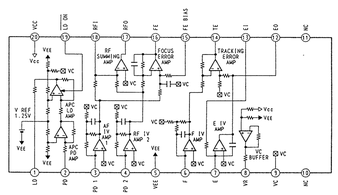
❻ IC14 ㉛ 4Vp-p 8.0MHz



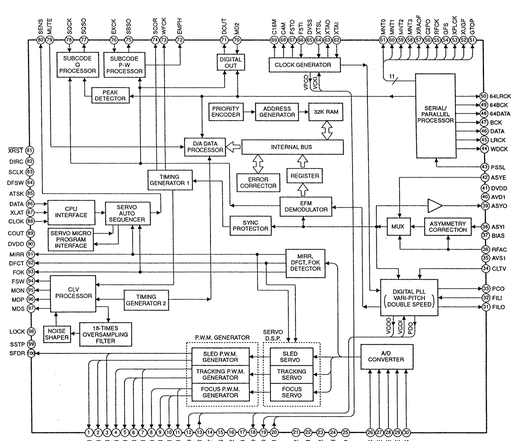
• IC Block Diagrams

– MAIN Board –

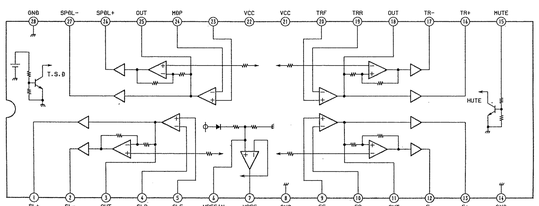
IC11 CXA1571N



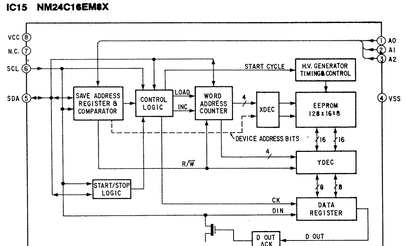
IC12 CXD2515Q



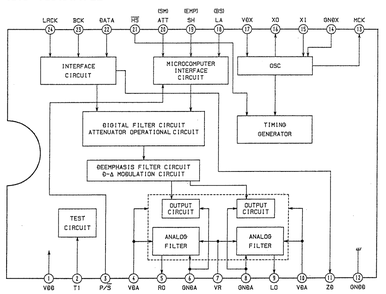
IC13 BA6297AFP



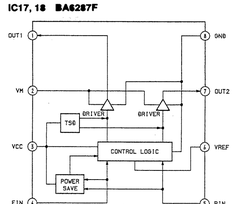
IC15 NM24C16EM8X



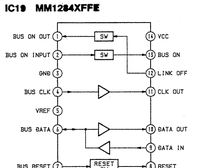
IC16 TC9404FN-EL



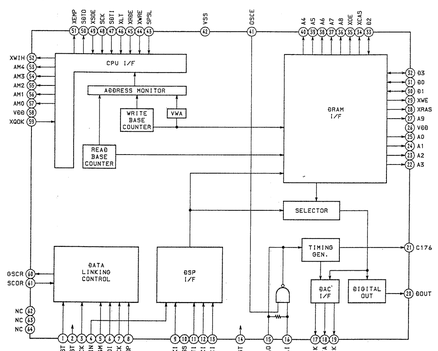
IC17, 18 BA6287F



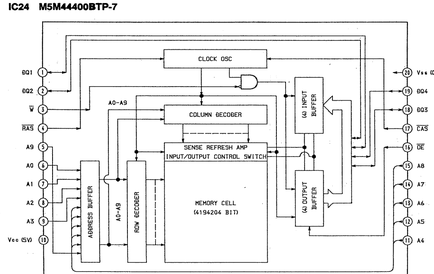
IC19 MM1284XFFE



IC23 CXD2522Q



IC24 M5M44400BTP-7



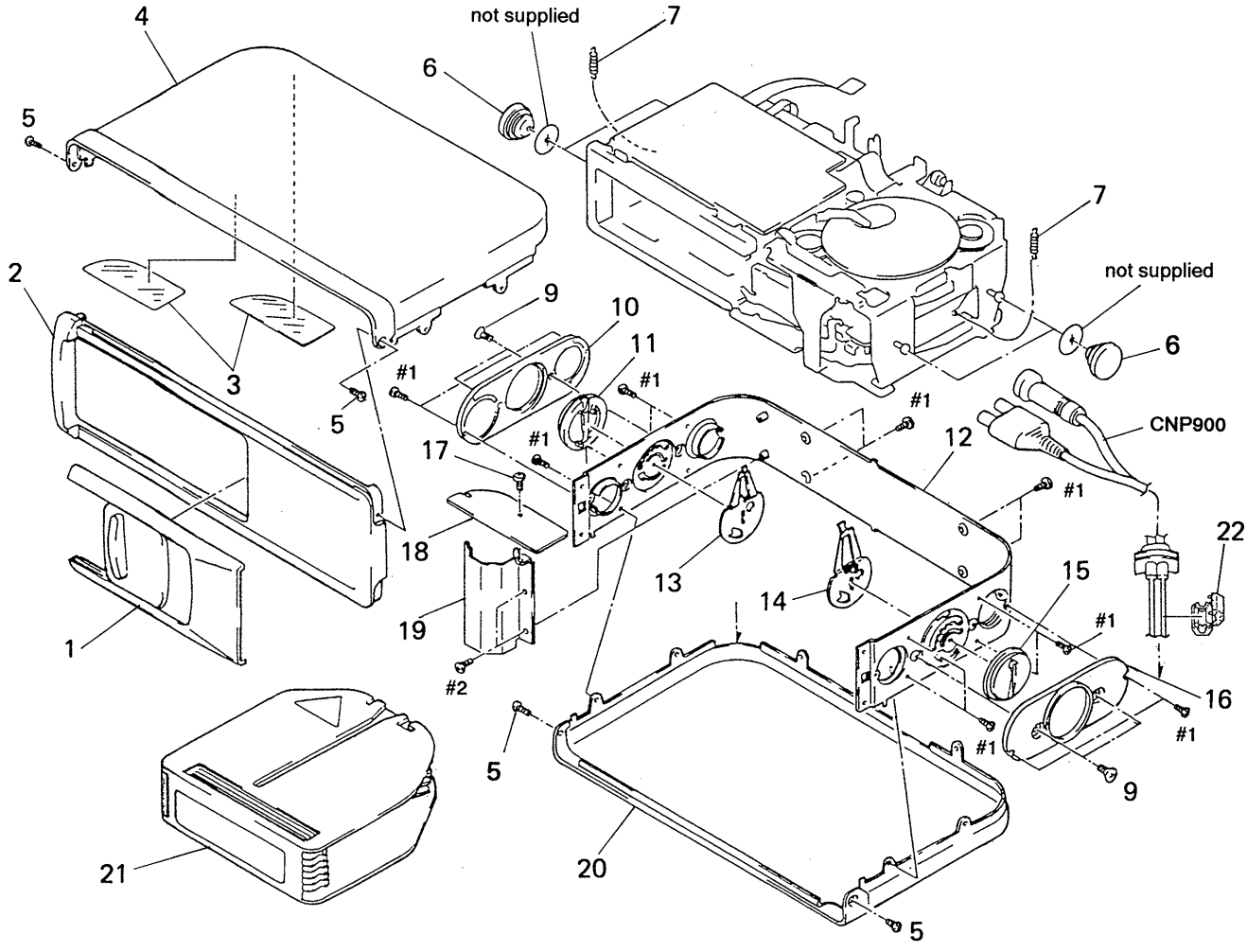
SECTION 7
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  G: German
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

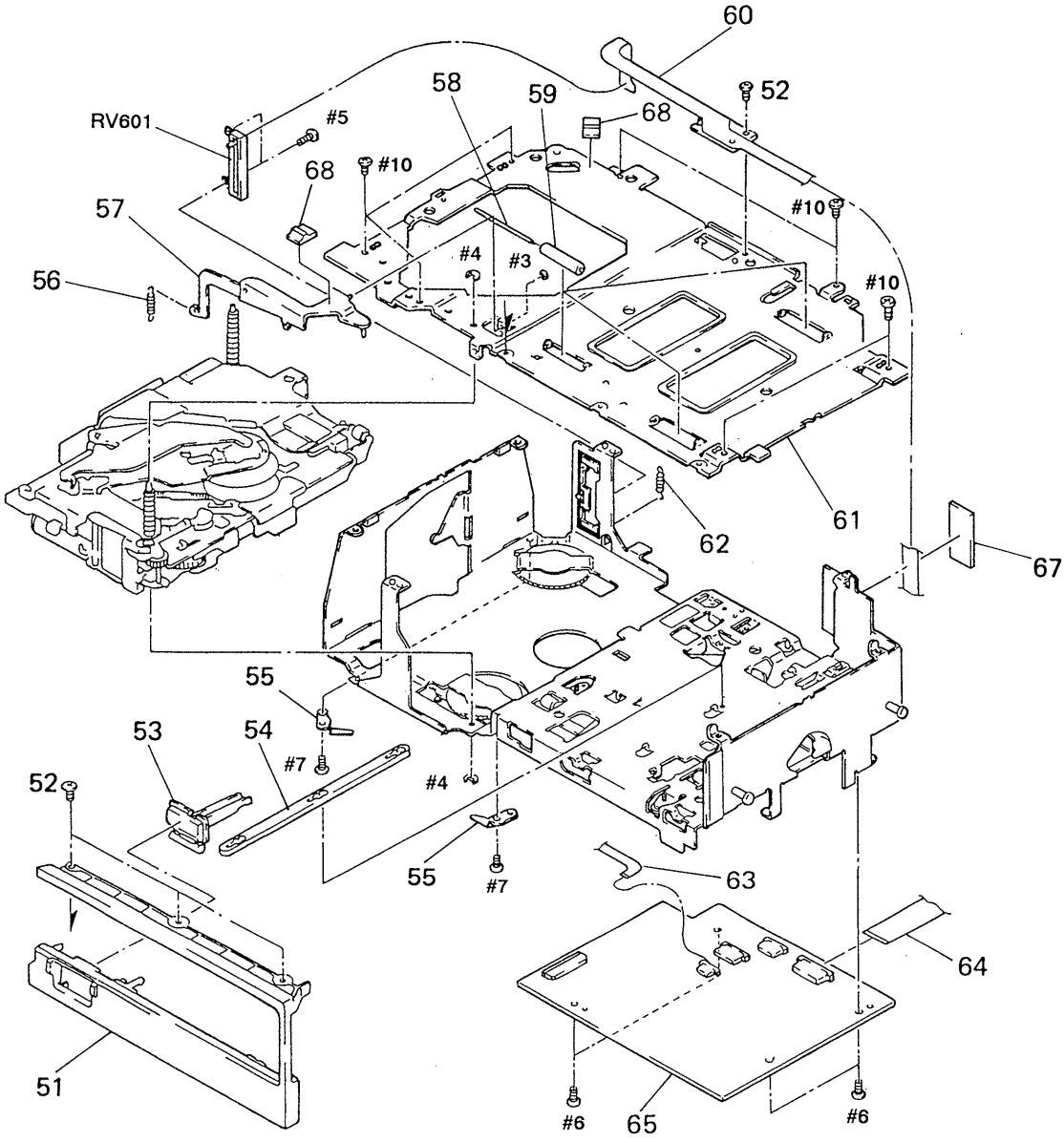
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

(1) CASE SECTION



Ref. No.	Part No.	Description	Remark
1	X-3371-591-1	DOOR ASSY	
2	X-3371-660-1	PANEL ASSY, FRONT (US)	
2	X-3371-873-1	PANEL ASSY, FRONT (Canadian, AEP, UK, E, G)	
* 3	3-920-361-01	SHEET (PC BOARD)	
* 4	X-3371-988-1	CASE (UP) ASSY	
5	3-920-360-01	SCREW (FRONT PANEL)	
6	3-920-391-11	DAMPER (T6)	
7	3-914-055-01	SPRING (FLOAT), TENSION	
9	3-920-359-01	SCREW (COVER)	
10	3-919-535-01	COVER (DAMPER)	
11	3-919-534-01	LEVER (COIN L)	
* 12	X-3369-670-1	CASE (MD) ASSY	
* 13	X-3369-483-1	ARM (SPRING L) ASSY	
* 14	X-3369-484-1	ARM (SPRING R) ASSY	
15	3-919-546-01	LEVER (COIN R)	
16	3-919-535-11	COVER (DAMPER)	
17	3-913-406-01	SCREW (GROUND)	
* 18	1-660-687-11	JACK BOARD	
* 19	3-920-312-01	BRACKET (CHASSIS 2)	
* 20	X-3369-482-1	CASE (DOWN) ASSY	
21	X-3370-355-1	MAGAZIN (SET) ASSY (A)	
22	1-500-249-11	BEAD, FERRITE (CASE) (US, AEP, UK, G)	
CNP900	1-769-248-21	CORD (WITH CONNECTOR) (BUS/PIN JACK) (LINE OUTPUT)	

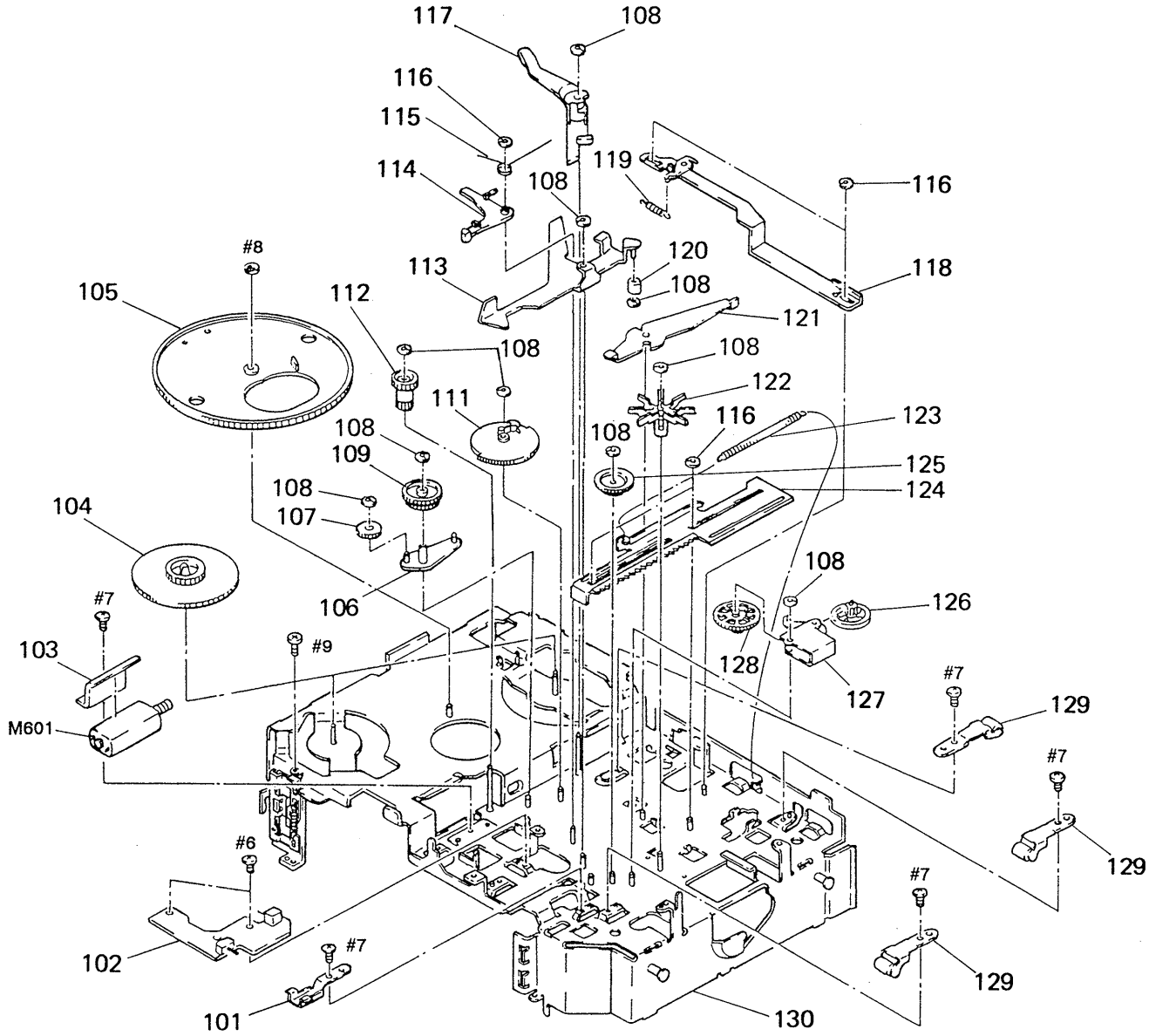
(2) MECHANISM DECK SECTION-1



Ref. No.	Part No.	Description	Remark
51	3-919-687-01	ESCUTCHEON	
52	3-920-362-01	SCREW (ESCUTCHEON)	
53	3-919-688-01	BUTTON (EJ)	
54	3-913-970-01	GUIDE (MAGAZINE)	
55	3-914-031-01	DETENT (EL)	
56	3-914-083-01	SPRING (LOCK FB), TENSION	
57	X-3368-458-2	ARM (LOCK FB) ASSY	
58	3-914-030-01	SHAFT (MB)	
59	3-914-029-01	ROLLER (MB)	

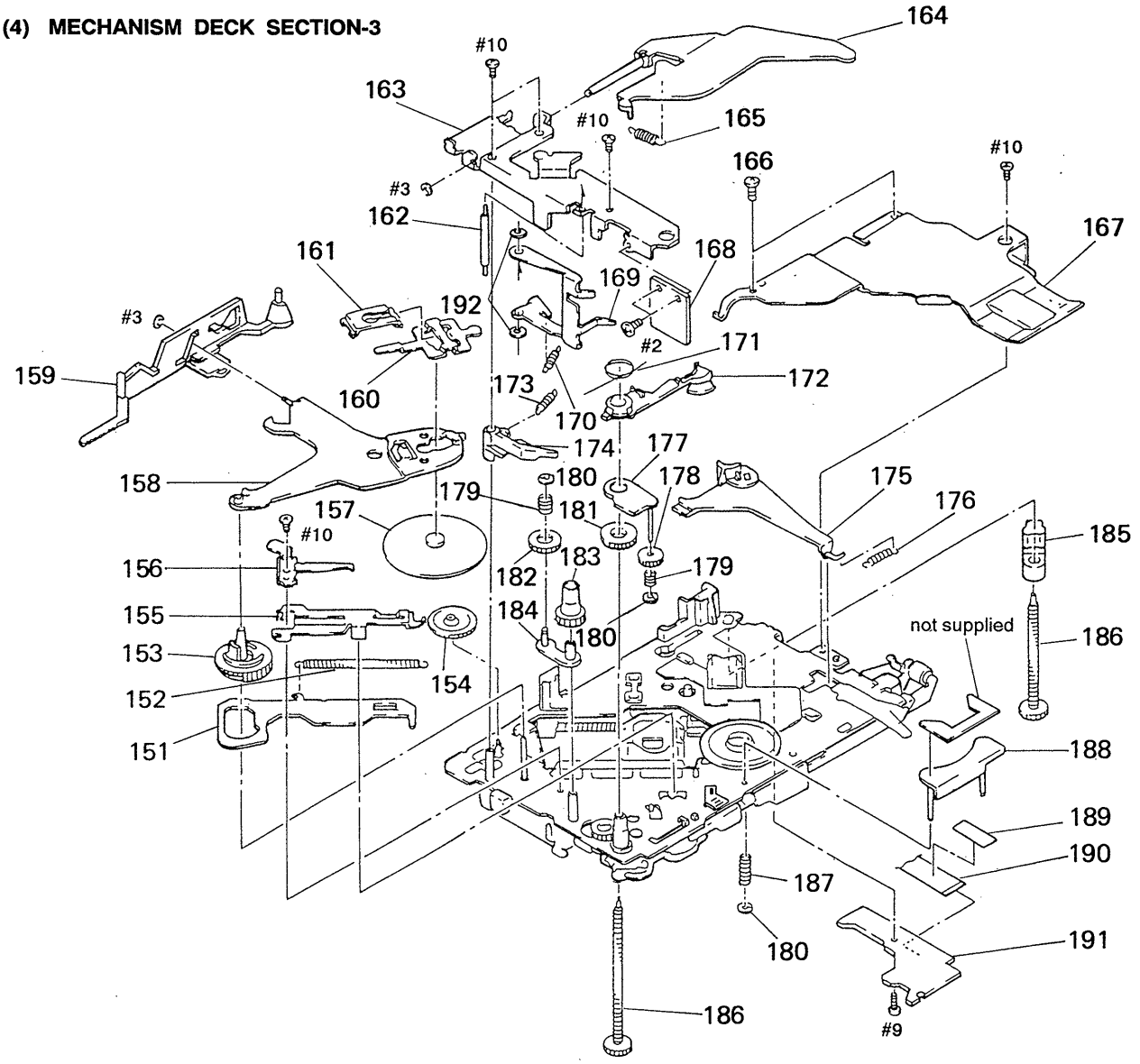
Ref. No.	Part No.	Description	Remark
60	1-654-840-12	EHS FLEXIBLE BOARD	
* 61	X-3371-576-1	CHASSIS (DOWN) ASSY	
62	3-921-391-01	SPRING (LINEAR), TENSION	
63	1-655-250-11	MAGAZINE FLEXIBLE BOARD	
64	1-655-251-11	JACK FLEXIBLE BOARD	
* 65	A-3309-274-A	MAIN BOARD, COMPLETE	
67	9-911-844-XX	CUSHION, BATTERY	
68	3-348-750-01	CUSHION (DAMPER)	
RV601	1-223-817-11	RES, VAR, SLIDE 10K	

(3) MECHANISM DECK SECTION-2



Ref. No.	Part No.	Description	Remark
101	3-914-069-01	DETENT (SHAFT MS)	
* 102	1-654-844-11	MAGAZINE BOARD	
103	3-914-026-01	DETENT (MOTOR E)	
104	3-914-013-01	GEAR (EL2)	
105	3-914-020-01	GEAR (EL1)	
106	X-3368-452-1	ARM (SELECTION E) ASSY	
107	3-913-988-01	GEAR (IDLER E)	
108	3-342-941-01	WASHER (M)	
109	3-913-996-01	GEAR (SDE)	
111	3-913-989-01	GEAR (EJ), CAM	
112	3-913-997-01	GEAR (SELECTION EL)	
113	X-3368-451-1	ARM (M LOCK) ASSY	
114	3-913-998-01	ARM (SWP)	
115	3-913-999-01	SPRING (TRIGGER E)	
116	3-914-077-01	RING (A), RETAINING	
117	3-914-022-01	ARM (TRIGGER E)	
118	X-3368-456-2	LEVER (RELEASE E) ASSY	
119	3-914-028-01	SPRING (LEMITER), TENSION	
120	3-913-982-01	ROLLER (ARM M LOCK)	
121	3-913-971-01	ARM (JOINT E)	
122	3-933-419-01	FAN (T)	
123	3-914-027-01	SPRING (EJ), TENSION	
124	3-913-972-01	LEVER (EJ)	
125	3-933-417-01	GEAR (EJAT)	
126	X-3371-717-1	GEAR (IDLER FT) ASSY	
127	3-933-420-01	ARM (EJBT)	
128	3-933-418-01	GEAR (EJBT)	
129	X-3368-454-1	DETENT (M ROLLER A) ASSY	
* 130	X-3371-575-1	CHASSIS (UP) ASSY	
M601	A-3291-196-A	MOTOR ASSY, DRIVING (ELEVATOR)	

(4) MECHANISM DECK SECTION-3

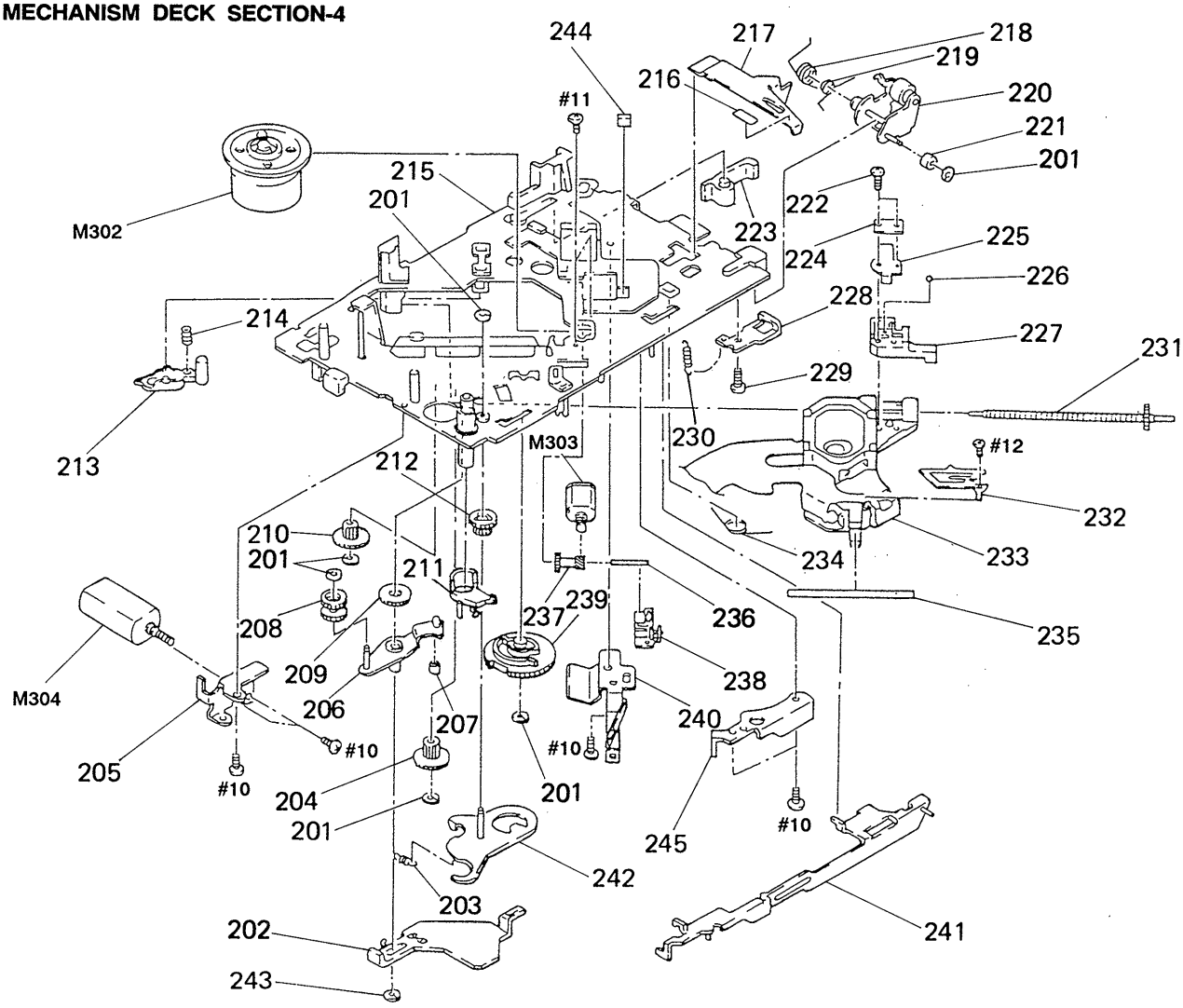


Ref. No.	Part No.	Description	Remark
151	3-914-078-02	LEVER (DISC RETAINER)	
152	3-914-099-02	SPRING (DISC), TENSION COIL	
153	X-3368-445-1	GEAR (C) ASSY, CAM	
154	3-914-113-01	GEAR (FL DRIVING A)	
155	3-914-084-03	ARM (DISC RETAINER)	
156	3-914-085-01	DETENT	
157	3-914-109-01	PLATE, CHUCK	
158	X-3368-448-1	ARM (CHUCKING) ASSY	
159	3-914-112-01	LEVER (T PUSH)	
160	3-914-111-01	RETAINER (C THRUST)	
161	3-914-110-01	SPRING (C. PLATE)	
* 162	3-913-914-01	SHAFT (T RELEASE)	
* 163	3-913-918-01	RETAINER (P)	
* 164	X-3368-449-1	RETAINER (C) ASSY	
165	3-913-919-01	SPRING (C), TENSION	
166	2-477-166-21	SCREW (H TYPE), TAPPING	
167	X-3370-069-1	GUIDE (TRAY) ASSY	
* 168	1-654-845-11	SWITCH BOARD	
169	3-913-921-01	ARM (T RELEASE)	
170	3-913-922-01	SPRING (T RELEASE), TENSION	
171	3-914-118-01	SPRING (D HOLD)	

Ref. No.	Part No.	Description	Remark
172	3-914-117-03	ARM (D HOLD)	
173	3-914-116-01	SPRING (R), TENSION	
174	3-914-115-01	PLATE (D HOLD), RELEASE	
175	3-913-923-01	NUT (M2)	
176	3-913-924-01	SPRING (NUT), TENSION	
177	X-3368-447-2	ARM (T DRIVING GEAR) ASSY	
178	3-914-098-01	GEAR (TDFP)	
179	3-914-093-01	SPRING (F), COMPRESSION	
180	3-914-077-01	RING (A), RETAINING	
181	3-914-097-01	GEAR (TDAP)	
182	3-914-092-01	GEAR (CDFP)	
183	3-914-091-01	GEAR (CDAP)	
184	X-3368-446-1	ARM (C DRIVING GEAR) ASSY	
185	3-913-925-01	NUT (M3)	
186	X-3369-627-1	SCREW (EL) ASSY, FEED	
187	3-914-076-01	SPRING (DISC), COMPRESSION	
* 188	X-3368-444-1	RETAINER (DISC) ASSY	
189	9-911-844-XX	CUSHION, BATTERY	
190	1-653-991-11	SENSOR FLEXIBLE BOARD	
* 191	1-654-843-11	SENSOR BOARD	
192	3-342-941-01	WASHER (M)	

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

(5) MECHANISM DECK SECTION-4



Ref. No.	Part No.	Description	Remark
201	3-342-941-01	WASHER (M)	
202	3-914-056-01	LEVER (SWE)	
203	3-914-059-01	SPRING (ASH), TENSION	
204	3-914-033-01	GEAR (DRIVING A)	
* 205	3-914-119-01	BRACKET (CM)	
206	X-3368-441-1	ARM (C/T SELECTION) ASSY	
207	3-914-019-01	ROLLER (C/T SELECTION)	
208	3-914-032-01	GEAR (CTAP)	
209	3-935-368-01	GEAR (CTDP2)	
210	3-914-057-01	GEAR (DRIVING B)	
211	3-914-035-01	ARM (SAFE CHANGE)	
212	3-914-014-01	GEAR (SDP)	
213	3-919-689-01	ARM (DISC UP)	
214	3-914-093-01	SPRING (F), COMPRESSION	
* 215	X-3368-437-1	OUTSERT (OPT) ASSY	
216	3-922-208-01	SPACER (DH)	
217	3-922-204-01	DETENT (DH)	
218	3-914-070-01	SPRING (LIMITER FLP)	
219	3-914-049-01	SPRING (FLP)	
220	X-3368-443-1	ARM (FLP) ASSY	
221	3-914-071-01	ROLLER (SHAFT FLKP)	
222	3-920-360-11	SCREW (FRONT PANEL)	
223	3-914-060-01	ARM (SWC)	
* 224	3-913-929-01	RETAINER (SL SPRING)	

Ref. No.	Part No.	Description	Remark
225	3-913-950-01	DETENT (SL SCREW)	
226	3-920-539-01	BALL (SL)	
227	3-913-949-01	NUT (SL), FEED	
228	3-914-058-02	RETAINER (FLP)	
229	2-477-166-21	SCREW (H TYPE), TAPPING	
230	3-922-206-02	SPRING (DH), TENSION COIL	
231	X-3369-628-1	SCREW (SL) ASSY, FEED	
232	3-913-951-01	DETENT (SL GUIDE)	
⚠233	8-848-442-11	OPTICAL PICK-UP KSS-402A/Z-N	
234	3-922-207-01	SPRING (LEVER FLP)	
* 235	3-913-928-01	SHAFT (SL GUIDE)	
* 236	3-913-938-01	SHAFT (GEAR SLB)	
237	3-913-937-01	GEAR (SLB)	
* 238	3-913-942-01	BRACKET (SL FEED SCREW)	
239	3-914-034-01	GEAR (CTP), CAM	
240	3-913-941-01	DETENT (MBS)	
* 241	X-3368-440-1	LEVER (FLP) ASSY	
* 242	X-3368-442-1	ARM (SAFETY) ASSY	
243	3-931-449-01	WASHER (SWE)	
244	3-928-970-01	BLOCK (SL)	
* 245	3-914-080-01	REINFORCEMENT (OPT)	
M302	A-3291-038-A	MOTOR ASSY, SPINDLE	
M303	A-3291-040-A	MOTOR ASSY, SLED	
M304	A-3291-196-A	MOTOR ASSY, DRIVING (CHUCKING)	

SECTION 8
ELECTRICAL PARTS LIST

SEE ADDITIONAL INFORMATION

EHS FLEXIBLE | **JACK** | **MAGAZINE** | **MAIN**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
	1-654-840-12	EHS FLEXIBLE BOARD	
		**********	
		< DIODE >	
D601	8-719-029-26	DIODE EL-308 (DISC TRAY DETECTOR)	
		< VARIABLE RESISTOR >	
RV601	1-223-817-11	RES, VAR, SLIDE 10K	
**********			
*	1-660-687-11	JACK BOARD	
		**********	
		< CAPACITOR >	
C901	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C902	1-165-319-11	CERAMIC CHIP 0.1uF 50V	
		< CONNECTOR >	
CNJ901	1-770-350-21	CONNECTOR, FPC 13P	
* CNP901	1-566-004-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP902	1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P	
		< FERRITE BEAD >	
FB901	1-414-235-11	INDUCTOR, FERRITE BEAD	
FB902	1-414-235-11	INDUCTOR, FERRITE BEAD	
FB903	1-414-235-11	INDUCTOR, FERRITE BEAD	
		< IC LINK >	
IC901	1-532-686-21	LINK, IC	
**********			
*	1-654-844-11	MAGAZINE BOARD	
		**********	
		< CONNECTOR >	
CNJ501	1-770-347-21	CONNECTOR, FPC 6P	
* CNP501	1-695-320-21	PIN, CONNECTOR (1.5MM)(SMD) 2P	
		< TRANSISTOR >	
Q501	8-729-018-00	PHOTO TRANSISTOR ST-308 (DISC TRAY DETECTOR)	
		< SWITCH >	
SW501	1-571-754-31	SWITCH, PUSH (1 KEY) (MAGAZINE IN/OUT DETECT)	
SW502	1-571-754-31	SWITCH, PUSH (1 KEY) (MAGAZINE EJECT END DETECT)	
**********			
*	A-3309-274-A	MAIN BOARD, COMPLETE	
		**********	
	3-937-697-01	PLATE(DAC), SHIELD	
		< CAPACITOR >	
C11	1-135-166-21	TANTALUM CHIP 47uF 10% 10V	
C12	1-135-166-21	TANTALUM CHIP 47uF 10% 10V	
C13	1-124-584-00	ELECT 100uF 20% 10V	
C14	1-135-166-21	TANTALUM CHIP 47uF 10% 10V	
C15	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C16	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C17	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C18	1-163-227-11	CERAMIC CHIP 10PF 0.25PF 50V	

SEE ADDITIONAL INFORMATION

MAIN

Ref. No.	Part No.	Description			Remark
C19	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C20	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C21	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C22	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C23	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C24	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C25	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C26	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C27	1-135-145-11	TANTALUM CHIP	0.47uF	10%	35V
C28	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C29	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C30	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C31	1-124-584-00	ELECT	100uF	20%	10V
C32	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C33	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C34	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C35	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C36	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C37	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C38	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C39	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C40	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C41	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C42	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C43	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C44	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C45	1-124-589-11	ELECT	47uF	20%	16V
C46	1-124-589-11	ELECT	47uF	20%	16V
C47	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C48	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C49	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C50	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C51	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C52	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C54	1-124-589-11	ELECT	47uF	20%	16V
C55	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C56	1-124-589-11	ELECT	47uF	20%	16V
C57	1-125-701-11	CAPACITOR	0.047F		
C58	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C59	1-124-589-11	ELECT	47uF	20%	16V
C60	1-124-589-11	ELECT	47uF	20%	16V
C61	1-124-589-11	ELECT	47uF	20%	16V
C62	1-124-589-11	ELECT	47uF	20%	16V
C63	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C64	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C65	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C66	1-164-346-11	CERAMIC CHIP	1uF		16V
C67	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C68	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C69	1-115-466-11	ELECT	1000uF	20%	16V
C70	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C71	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C72	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C73	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C74	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C75	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C76	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C77	1-161-494-00	CERAMIC	0.022uF	30%	25V
C78	1-161-494-00	CERAMIC	0.022uF	30%	25V
C79	1-161-494-00	CERAMIC	0.022uF	30%	25V
C80	1-161-494-00	CERAMIC	0.022uF	30%	25V
C90	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C91	1-126-154-11	ELECT	47uF	20%	6.3V
C92	1-126-157-11	ELECT	10uF	20%	16V
C93	1-135-179-21	TANTAL. CHIP	2.2uF	20%	16V
C94	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C95	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C96	1-126-154-11	ELECT	47uF	20%	6.3V
C97	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C98	1-126-154-11	ELECT	47uF	20%	6.3V
C99	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C100	1-162-288-31	CERAMIC	330PF	10%	50V
C101	1-126-157-11	ELECT	10uF	20%	16V
C102	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C201	1-126-157-11	ELECT	10uF	20%	16V
C202	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

< CONNECTOR >

CNJ11	1-764-438-21	CONNECTOR, FPC 17P
CNJ12	1-770-349-21	CONNECTOR, FPC 12P
CNJ13	1-770-347-21	CONNECTOR, FPC 6P
CNJ14	1-770-346-21	CONNECTOR, FPC 4P
CNJ15	1-770-350-21	CONNECTOR, FPC 13P

< DIODE >

D12	8-719-210-33	DIODE	EC10DS2
D13	8-719-210-33	DIODE	EC10DS2
D14	8-719-801-78	DIODE	1SS184
D15	8-719-106-08	DIODE	RD6.2M-B2
D16	8-719-105-99	DIODE	RD6.2M-B1
D17	8-719-038-48	DIODE	1SS319(TE85R)
D18	8-719-801-78	DIODE	1SS184
D19	8-719-105-99	DIODE	RD6.2M-B1
D20	8-719-975-40	DIODE	RB411D
D21	8-719-105-99	DIODE	RD6.2M-B1
D22	8-719-975-40	DIODE	RB411D
D23	8-719-975-40	DIODE	RB411D

MAIN

SEE ADDITIONAL INFORMATION

Ref. No.	Part No.	Description			Remark
		< CHIP CONDUCTOR >			
FB91	1-216-295-00	CONDUCTOR, CHIP (2012)			
FB92	1-216-295-00	CONDUCTOR, CHIP (2012)			
		< IC >			
IC11	8-752-061-08	IC CXA1571N			
IC12	8-752-351-94	IC CXD2515Q			
IC13	8-759-071-79	IC BA6297AFP			
IC14	8-752-872-99	IC CXP84332-030Q			
IC15	8-759-363-60	IC NM24C16EM8X			
IC16	8-759-327-78	IC TC9404FN-EL			
IC17	8-759-040-83	IC BA6287F			
IC18	8-759-040-83	IC BA6287F			
IC19	8-759-284-87	IC MM1284XFFE			
IC20	8-759-097-36	IC RH5VA40AA			
IC21	8-759-324-40	IC KIA7805PI			
IC22	8-759-054-12	IC PQ09RA1			
IC23	8-752-374-09	IC CXD2522Q			
IC24	8-759-295-34	IC M5M44400BTP-7			
		< CHIP CONDUCTOR >			
JC11	1-216-295-00	CONDUCTOR, CHIP (2012)			
JC12	1-216-295-00	CONDUCTOR, CHIP (2012)			
		< FERRITE BEAD >			
L11	1-414-235-11	INDUCTOR, FERRITE BEAD			
L91	1-414-235-11	INDUCTOR, FERRITE BEAD			
		< TRANSISTOR >			
Q11	8-729-141-48	TRANSISTOR 2SB624-BV345			
Q12	8-729-424-59	TRANSISTOR UN2212			
Q13	8-729-807-34	TRANSISTOR 2SB1123-S			
Q14	8-729-424-12	TRANSISTOR UN2112			
Q15	8-729-020-67	TRANSISTOR XN1A312-TX			
Q16	8-729-016-83	TRANSISTOR 2SB1446			
Q17	8-729-424-59	TRANSISTOR UN2212			
Q18	8-729-822-05	TRANSISTOR 2SD1622-ST-TD			
Q19	8-729-424-12	TRANSISTOR UN2112			
Q20	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q91	8-729-424-59	TRANSISTOR UN2212			
Q92	8-729-424-08	TRANSISTOR UN2111			
Q101	8-729-015-39	TRANSISTOR DTC323TK			
Q201	8-729-015-39	TRANSISTOR DTC323TK			
		< RESISTOR >			
R11	1-216-025-00	METAL GLAZE	100	5%	1/10W
R12	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R13	1-216-093-00	METAL CHIP	68K	5%	1/10W
R14	1-216-093-00	METAL CHIP	68K	5%	1/10W
R15	1-216-093-00	METAL CHIP	68K	5%	1/10W
R16	1-216-093-00	METAL CHIP	68K	5%	1/10W
R17	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R18	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R19	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R20	1-216-158-00	METAL GLAZE	22	5%	1/8W
R21	1-216-073-00	METAL CHIP	10K	5%	1/10W
R22	1-216-077-00	METAL CHIP	15K	5%	1/10W
R23	1-216-077-00	METAL CHIP	15K	5%	1/10W
R24	1-216-075-00	METAL CHIP	12K	5%	1/10W
R25	1-216-073-00	METAL CHIP	10K	5%	1/10W
R26	1-216-073-00	METAL CHIP	10K	5%	1/10W
R27	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R28	1-216-073-00	METAL CHIP	10K	5%	1/10W
R29	1-216-085-00	METAL CHIP	33K	5%	1/10W
R30	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R31	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R32	1-216-833-11	METAL CHIP	10K	5%	1/16W
R33	1-216-857-11	METAL CHIP	1M	5%	1/16W
R34	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R35	1-216-073-00	METAL CHIP	10K	5%	1/10W
R36	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R37	1-216-085-00	METAL CHIP	33K	5%	1/10W
R38	1-216-081-00	METAL CHIP	22K	5%	1/10W
R39	1-216-093-00	METAL CHIP	68K	5%	1/10W
R40	1-216-093-00	METAL CHIP	68K	5%	1/10W
R41	1-216-093-00	METAL CHIP	68K	5%	1/10W
R42	1-216-833-11	METAL CHIP	10K	5%	1/16W
R43	1-216-833-11	METAL CHIP	10K	5%	1/16W
R44	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R45	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R46	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R47	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R48	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R49	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R50	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R51	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R52	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R53	1-218-344-11	METAL GLAZE	7.5K	5%	1/16W
R54	1-216-073-00	METAL CHIP	10K	5%	1/10W
R55	1-216-073-00	METAL CHIP	10K	5%	1/10W
R56	1-216-033-00	METAL CHIP	220	5%	1/10W
R57	1-216-033-00	METAL CHIP	220	5%	1/10W
R58	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R59	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R60	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R61	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

SEE ADDITIONAL INFORMATION

MAIN | SENSOR | SWITCH

Ref. No.	Part No.	Description			Remark
R62	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R63	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R64	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R65	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R66	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R67	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R68	1-216-081-00	METAL CHIP	22K	5%	1/10W
R69	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R70	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R71	1-216-081-00	METAL CHIP	22K	5%	1/10W
R72	1-216-045-00	METAL CHIP	680	5%	1/10W
R73	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R74	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R75	1-216-809-11	METAL CHIP	100	5%	1/16W
R76	1-216-809-11	METAL CHIP	100	5%	1/16W
R77	1-216-809-11	METAL CHIP	100	5%	1/16W
R78	1-216-809-11	METAL CHIP	100	5%	1/16W
R79	1-216-809-11	METAL CHIP	100	5%	1/16W
R80	1-216-809-11	METAL CHIP	100	5%	1/16W
R81	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R82	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R83	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R84	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R85	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R86	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R87	1-216-073-00	METAL CHIP	10K	5%	1/10W
R88	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R89	1-216-077-00	METAL CHIP	15K	5%	1/10W
R90	1-216-809-11	METAL CHIP	100	5%	1/16W
R91	1-216-001-00	METAL CHIP	10	5%	1/10W
R92	1-216-001-00	METAL CHIP	10	5%	1/10W
R93	1-216-001-00	METAL CHIP	10	5%	1/10W
R101	1-216-033-00	METAL CHIP	220	5%	1/10W
R102	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R201	1-216-033-00	METAL CHIP	220	5%	1/10W
R202	1-216-097-00	METAL GLAZE	100K	5%	1/10W
		< VARIABLE RESISTOR >			
RV11	1-241-225-11	RES, ADJ, METAL GRAZE 22K			
RV12	1-241-226-11	RES, ADJ, METAL GRAZE 47K			
		< SWITCH >			
SW11	1-762-526-11	SWITCH (⏏)			
		< THERMISTOR >			
TH11	1-810-510-21	THERMISTOR NTH5G35A472K01TE			

Ref. No.	Part No.	Description	Remark
		< VIBRATOR >	
X11	1-579-125-11	VIBRATOR, CERAMIC (8.0MHz)	
X12	1-760-307-11	VIBRATOR, CERAMIC (16.9344MHz)	
**********			
*	1-654-843-11	SENSOR BOARD	
		**********	
		< CONNECTOR >	
CNJ301	1-770-349-21	CONNECTOR, FPC 12P	
* CNP301	1-580-056-21	PIN, CONNECTOR 3P	
CNP302	1-580-055-21	PIN, CONNECTOR 2P	
CNP303	1-580-055-21	PIN, CONNECTOR 2P	
CNP304	1-580-055-21	PIN, CONNECTOR 2P	
		< SWITCH >	
SW301	1-571-754-31	SWITCH, PUSH (1 KEY)	(LIMIT DETECT)
SW302	1-571-754-31	SWITCH, PUSH (1 KEY) (CHUCKING MOVEMENT END DETECT)	
**********			
*	1-654-845-11	SWITCH BOARD	
		**********	
		< SWITCH >	
SW401	1-570-953-11	SWITCH, PUSH (1 KEY)	(DISC IN/OUT DETECT)
SW402	1-570-953-11	SWITCH, PUSH (1 KEY) (TRAY MOVEMENT END DETECT)	
**********			
		MISCELLANEOUS	
		**********	
63	1-655-250-11	MAGAZINE FLEXIBLE BOARD	
64	1-655-251-11	JACK FLEXIBLE BOARD	
190	1-653-991-11	SENSOR FLEXIBLE BOARD	
⚠233	8-848-442-11	OPTICAL PICK-UP KSS-402A/Z-N	
CNP900	1-769-248-21	CORD (WITH CONNECTOR)	(BUS/PIN JACK) (LINE OUTPUT)
M302	A-3291-038-A	MOTOR ASSY, SPINDLE	
M303	A-3291-040-A	MOTOR ASSY, SLED	
M304	A-3291-196-A	MOTOR ASSY, DRIVING (CHUCKING)	
M601	A-3291-196-A	MOTOR ASSY, DRIVING (ELEVATOR)	
RV601	1-223-817-11	RES, VAR, SLIDE 10K	
**********			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark

****
HARDWARE LIST
****

#1	7-685-781-09	SCREW +PTT 2X4 (S)	
#2	7-621-772-08	SCREW +B 2X3	
#3	7-624-101-04	STOP RING 1.2 (E TYPE)	
#4	7-624-102-04	STOP RING 1.5, TYPE -E	
#5	7-627-852-08	SCREW, PRECISION +P 1.7X2.5	
#6	7-685-780-01	SCREW +PTT 2X3 (S)	
#7	7-621-255-10	SCREW +PTT 2X3 (S)	
#8	7-624-104-04	STOP RING 2.0, TYPE -E	
#9	7-621-772-38	SCREW +B 2X6	
#10	7-627-554-07	SCREW, PRECISION +P 2X2.2	
#11	7-627-552-78	SCREW, PRECISION +P 1.7X3.5	
#12	7-627-850-07	SCREW, PRECISION +P 1.4X2	

****

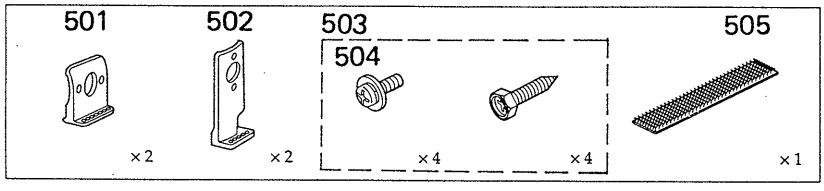
ACCESSORIES & PACKING MATERIALS
****

	1-590-519-21	CORD (WITH CONNECTOR) (BUS)
	1-590-874-11	CORD, CONNECTION (RCA PIN)
	3-810-936-12	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE) (US, Canadian, E)
	3-810-936-22	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, ITALIAN, DUTCH) (AEP, UK, German)
	3-810-936-32	MANUAL, INSTRUCTION (SPANISH, SWEDISH, PORTUGUESE, DANISH, FINNISH) (AEP, UK)

****

MOUNTING HARDWARE
****

* 501	3-919-537-01	BRACKET (HORIZONTAL)	
* 502	3-919-541-01	BRACKET (VERTICAL)	
503	X-3364-512-1	SCREW ASSY	
504	7-682-662-09	SCREW +PSW 4X10	
505	3-920-869-01	TAPE (MALE)	



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Quality Engineering Dept.

CDX-T65

SONY

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model

SUPPLEMENT-1

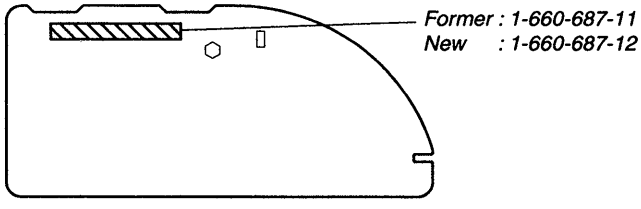
File this supplement with the service manual.

Subject: Change of Main Board and Jack Board

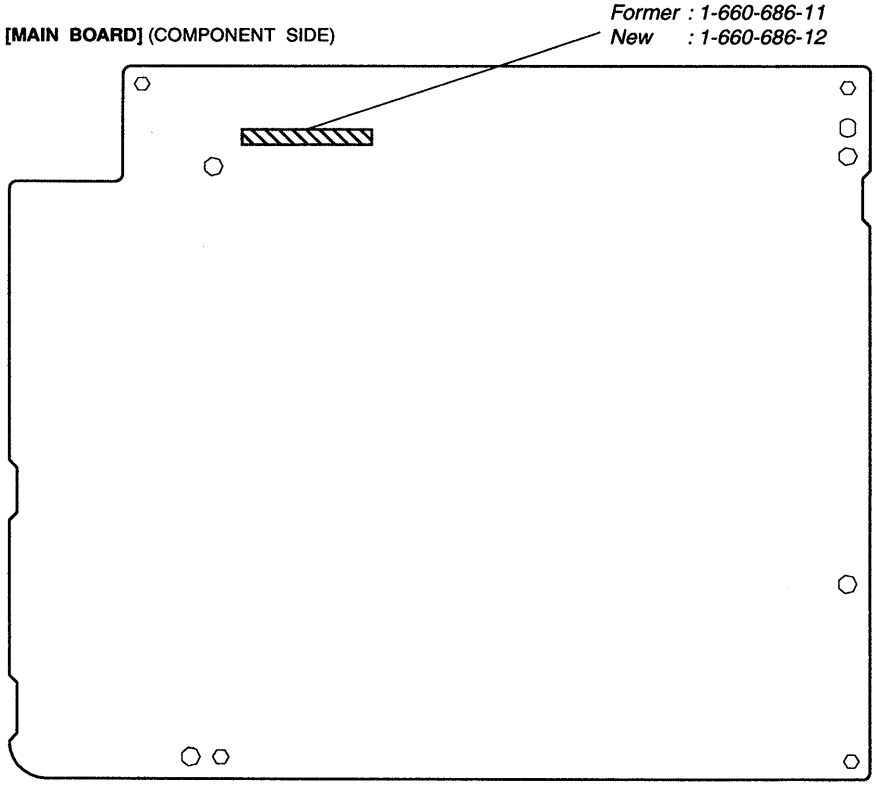
(ECN-CS602554)

1. NEW / FORMER DISCRIMINATION

[JACK BOARD] (COMPONENT SIDE)



[MAIN BOARD] (COMPONENT SIDE)



2. PRINTED WIRING BOARDS

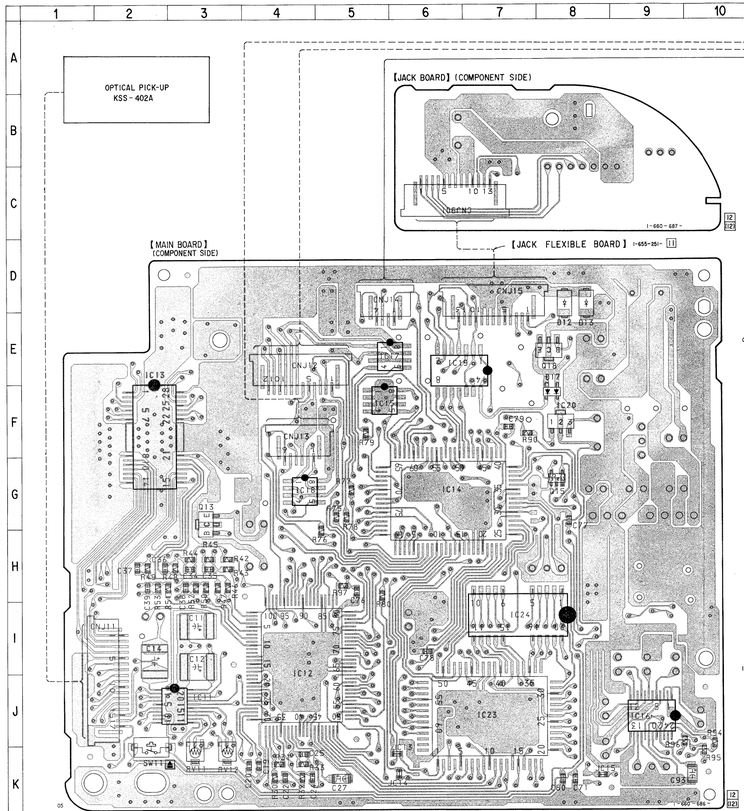
• **Semiconductor Location**

Ref. No.	Location
D12	D-8
D13	D-8
D14	E-13
D15	F-13
D16	F-12
D17	F-8
D18	F-12
D19	E-15
D20	E-15
D21	E-15
D22	E-15
D23	E-14
D601	C-25
IC11	J-3
IC12	I-4
IC13	F-2
IC14	G-6
IC15	F-5
IC16	J-9
IC17	E-6
IC18	G-4
IC19	E-6
IC20	F-8
IC21	H-12
IC22	H-11
IC23	J-7
IC24	I-7
Q11	I-19
Q12	G-17
Q13	G-3
Q14	F-16
Q15	G-8
Q16	F-12
Q17	F-11
Q18	E-8
Q19	F-13
Q20	F-14
Q91	H-12
Q92	I-12
Q101	H-11
Q201	I-11
Q501	B-24

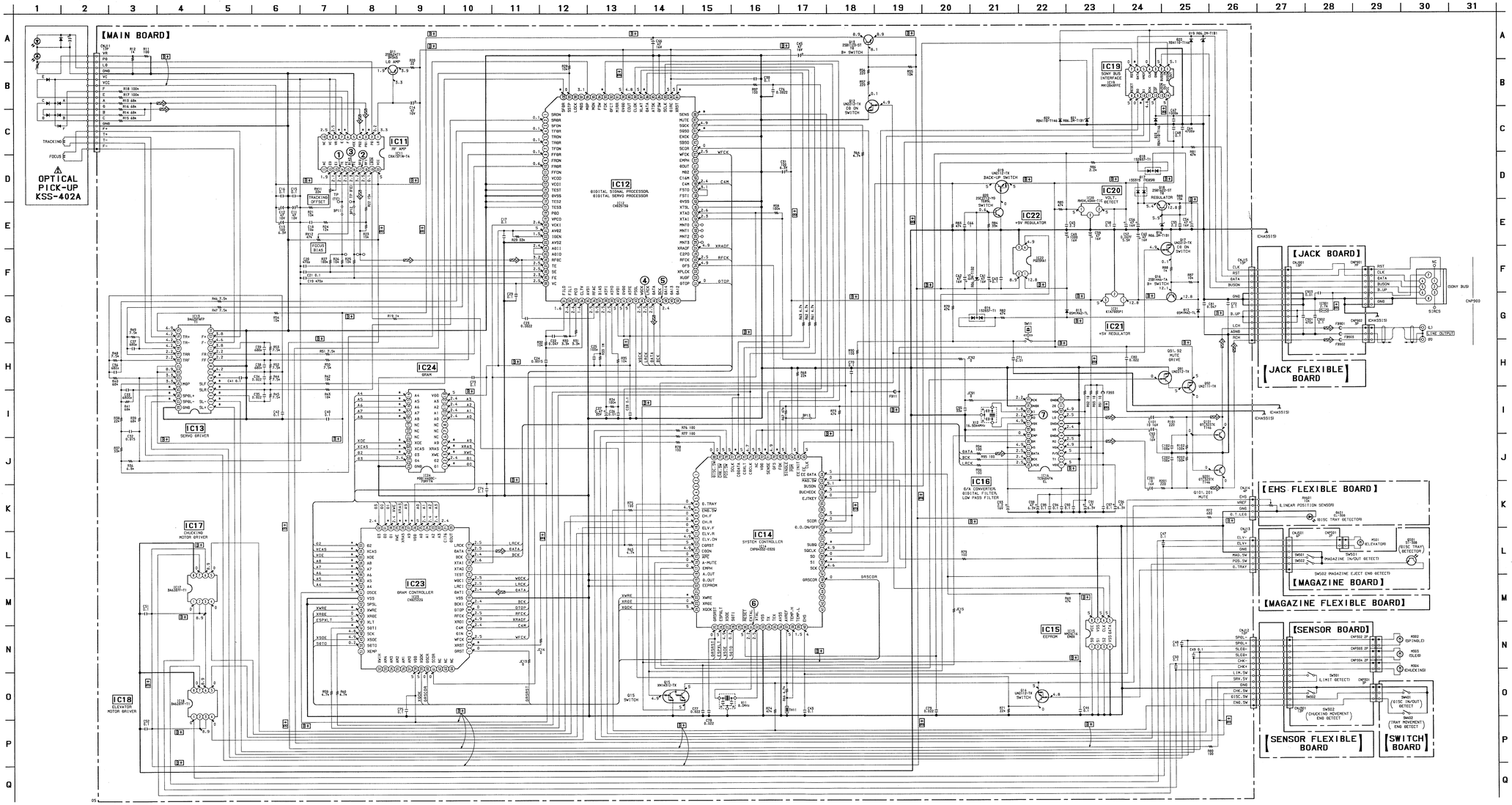
Note on Printed Wiring Boards:
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.



3. SCHEMATIC DIAGRAM



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantaiums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.

Note:	Note:
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▭ : panel designation.
- B+ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4 V and fed from CD changer controller.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  # : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD

4. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
	1-654-840-11	EHS FLEXIBLE BOARD	
		**********	
		< DIODE >	
D601	8-719-029-26	DIODE EL-308 (DISC TRAY DETECTOR)	
		< VARIABLE RESISTOR >	
RV601	1-223-817-11	RES, VAR, SLIDE 10K (LINEAR POSITION SENSOR)	
**********			
*	1-660-687-11	JACK BOARD	
		**********	
		< CAPACITOR >	
C901	1-163-005-11	CERAMIC CHIP 470PF 10%	50V
C902	1-165-319-11	CERAMIC CHIP 0.1uF	50V
C903	1-164-232-11	CERAMIC CHIP 0.01uF	50V
		< CONNECTOR >	
CNJ901	1-770-350-21	CONNECTOR, FPC 13P	
* CNP901	1-566-004-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP902	1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P	
		< FERRITE BEAD >	
FB901	1-414-235-11	INDUCTOR CHIP 0uH	
FB902	1-414-235-11	INDUCTOR CHIP 0uH	
FB903	1-414-235-11	INDUCTOR CHIP 0uH	
		< IC LINK >	
IC901	1-532-686-21	LINK, IC	
**********			

Ref. No.	Part No.	Description	Remark
*	1-654-844-11	MAGAZINE BOARD	
		**********	
		< CONNECTOR >	
CNJ501	1-770-347-21	CONNECTOR, FPC 6P	
* CNP501	1-695-320-21	PIN, CONNECTOR (1.5MM)(SMD) 2P	
		< TRANSISTOR >	
Q501	8-729-018-00	PHOTO TRANSISTOR ST-308 (DISC TRAY DETECTOR)	
		< SWITCH >	
SW501	1-571-754-31	SWITCH, PUSH (1 KEY) (MAGAZIN IN/OUT DETECT)	
SW502	1-571-754-31	SWITCH, PUSH (1 KEY) (MAGAZIN EJECT END DETECT)	
**********			
*	A-3309-274-A	MAIN BOARD, COMPLETE	
		**********	
		< CAPACITOR >	
C11	1-135-166-21	TANTALUM CHIP 47uF 10%	10V
C12	1-135-166-21	TANTALUM CHIP 47uF 10%	10V
C13	1-124-584-00	ELECT 100uF 20%	10V
C14	1-135-166-21	TANTALUM CHIP 47uF 10%	10V
C15	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C16	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C17	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C18	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V
C19	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
C20	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
C21	1-164-004-11	CERAMIC CHIP 0.1uF 10%	25V
C22	1-165-176-11	CERAMIC CHIP 0.047uF 10%	16V
C23	1-164-161-11	CERAMIC CHIP 0.0022uF 10%	100V
C24	1-162-965-11	CERAMIC CHIP 0.0015uF 10%	50V
C25	1-162-927-11	CERAMIC CHIP 100PF 5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C26	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C27	1-135-145-11	TANTALUM CHIP	0.47uF	10%	35V
C28	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C29	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C30	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C31	1-124-584-00	ELECT	100uF	20%	10V
C32	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C33	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C34	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C35	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C36	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C37	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C38	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C39	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C40	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C41	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C42	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C43	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C44	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C45	1-124-589-11	ELECT	47uF	20%	16V
C46	1-124-589-11	ELECT	47uF	20%	16V
C47	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C48	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C49	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C50	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C51	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C52	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C54	1-124-589-11	ELECT	47uF	20%	16V
C55	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C56	1-124-589-11	ELECT	47uF	20%	16V
C57	1-125-701-11	DOUBLE LAYER	0.047F		5.5V
C58	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C59	1-124-589-11	ELECT	47uF	20%	16V
C60	1-124-589-11	ELECT	47uF	20%	16V
C61	1-124-589-11	ELECT	47uF	20%	16V
C62	1-124-589-11	ELECT	47uF	20%	16V
C63	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C64	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C65	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C66	1-164-346-11	CERAMIC CHIP	1uF		16V
C67	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C68	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C69	1-115-466-11	ELECT	1000uF	20%	16V
C70	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C71	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C72	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C73	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C74	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C75	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C76	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C77	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C78	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C79	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C80	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C81	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C90	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C91	1-126-154-11	ELECT	47uF	20%	6.3V
C92	1-126-157-11	ELECT	10uF	20%	16V
C93	1-135-179-21	TANTAL. CHIP	2.2uF	20%	16V
C94	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C95	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C96	1-126-154-11	ELECT	47uF	20%	6.3V
C97	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C98	1-126-154-11	ELECT	47uF	20%	6.3V
C99	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C101	1-126-157-11	ELECT	10uF	20%	16V
C102	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C201	1-126-157-11	ELECT	10uF	20%	16V
C202	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CNJ11	1-764-438-21	CONNECTOR, FPC 17P			
CNJ12	1-770-349-21	CONNECTOR, FPC 12P			
CNJ13	1-770-347-21	CONNECTOR, FPC 6P			
CNJ14	1-770-346-21	CONNECTOR, FPC 4P			
CNJ15	1-770-350-21	CONNECTOR, FPC 13P			
		< DIODE >			
D12	8-719-210-33	DIODE EC10DS2			
D13	8-719-210-33	DIODE EC10DS2			
D14	8-719-801-78	DIODE 1SS184			
D15	8-719-106-08	DIODE RD6.2M-B2			
D16	8-719-105-99	DIODE RD6.2M-B1			
D17	8-719-038-48	DIODE 1SS319(TE85R)			
D18	8-719-801-78	DIODE 1SS184			
D19	8-719-105-99	DIODE RD6.2M-B1			
D20	8-719-975-40	DIODE RB411D			
D21	8-719-105-99	DIODE RD6.2M-B1			
D22	8-719-975-40	DIODE RB411D			
D23	8-719-975-40	DIODE RB411D			
		< FERRITE BEAD >			
FB11	1-414-235-11	INDUCTOR CHIP 0uH			
FB93	1-414-235-11	INDUCTOR CHIP 0uH			
		< IC >			
IC11	8-752-061-08	IC CXA1571N			
IC12	8-752-351-94	IC CXD2515Q			
IC13	8-759-071-79	IC BA6297AFP			
IC14	8-752-873-72	IC CXP84332-032Q			
IC15	8-759-253-82	IC AT24C16N-10SI-TR			
IC16	8-759-327-78	IC TC9404FN-EL			

Ref. No.	Part No.	Description	Remark
IC17	8-759-040-83	IC BA6287F	
IC18	8-759-040-83	IC BA6287F	
IC19	8-759-284-87	IC MM1284XFFE	
IC20	8-759-443-41	IC RH5VL40AA-T1C	
IC21	8-759-324-40	IC KIA7805PI	
IC22	8-759-054-12	IC PQ09RA1	
IC23	8-752-374-09	IC CXD2522Q	
IC24	8-759-427-15	IC MB814400C-70PFTN	
		< CHIP CONDUCTOR >	
JC13	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC14	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC15	1-216-864-11	METAL CHIP 0 5% 1/16W	
JC91	1-216-295-00	SHORT 0 (2012)	
JC92	1-216-295-00	SHORT 0 (2012)	
		< TRANSISTOR >	
Q11	8-729-141-48	TRANSISTOR 2SB624-BV345	
Q12	8-729-424-59	TRANSISTOR UN2212	
Q13	8-729-807-34	TRANSISTOR 2SB1123-S	
Q14	8-729-424-12	TRANSISTOR UN2112	
Q15	8-729-020-67	TRANSISTOR XN1A312-TX	
Q16	8-729-016-83	TRANSISTOR 2SB1446	
Q17	8-729-424-59	TRANSISTOR UN2212	
Q18	8-729-822-05	TRANSISTOR 2SD1622-ST-TD	
Q19	8-729-424-12	TRANSISTOR UN2112	
Q20	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q91	8-729-424-59	TRANSISTOR UN2212	
Q92	8-729-424-08	TRANSISTOR UN2111	
Q101	8-729-015-39	TRANSISTOR DTC323TK	
Q201	8-729-015-39	TRANSISTOR DTC323TK	
		< RESISTOR >	
R11	1-216-025-00	RES,CHIP 100 5% 1/10W	
R12	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R13	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R14	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R15	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R16	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R17	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R18	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R19	1-216-049-11	RES,CHIP 1K 5% 1/10W	
R20	1-216-158-00	RES,CHIP 22 5% 1/8W	
R21	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R22	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R23	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R24	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R25	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R26	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R27	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R28	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R29	1-216-085-00	METAL CHIP 33K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R30	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R31	1-216-827-11	METAL CHIP 3.3K 5% 1/16W	
R32	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R33	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R34	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R35	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R36	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R37	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R38	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R39	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R40	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R41	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R42	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R43	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R44	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R45	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R46	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R47	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R48	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R49	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R50	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R51	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R52	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R53	1-218-344-11	RES,CHIP 7.5K 5% 1/16W	
R54	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R55	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R56	1-216-033-00	METAL CHIP 220 5% 1/10W	
R57	1-216-033-00	METAL CHIP 220 5% 1/10W	
R58	1-216-097-00	RES,CHIP 100K 5% 1/10W	
R59	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R60	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R61	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R62	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R63	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R64	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R65	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R66	1-216-065-00	RES,CHIP 4.7K 5% 1/10W	
R67	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R68	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R69	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R70	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R71	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R72	1-216-045-00	METAL CHIP 680 5% 1/10W	
R73	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R74	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R75	1-216-809-11	METAL CHIP 100 5% 1/16W	
R76	1-216-809-11	METAL CHIP 100 5% 1/16W	
R77	1-216-809-11	METAL CHIP 100 5% 1/16W	
R78	1-216-809-11	METAL CHIP 100 5% 1/16W	
R79	1-216-809-11	METAL CHIP 100 5% 1/16W	
R80	1-216-809-11	METAL CHIP 100 5% 1/16W	

MAIN **SENSOR** **SWITCH**

Ref. No.	Part No.	Description			Remark
R81	1-216-089-00	RES,CHIP	47K	5%	1/10W
R82	1-216-089-00	RES,CHIP	47K	5%	1/10W
R83	1-216-089-00	RES,CHIP	47K	5%	1/10W
R84	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R85	1-216-089-00	RES,CHIP	47K	5%	1/10W
R86	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R87	1-216-073-00	METAL CHIP	10K	5%	1/10W
R88	1-216-049-11	RES,CHIP	1K	5%	1/10W
R89	1-216-077-00	METAL CHIP	15K	5%	1/10W
R90	1-216-809-11	METAL CHIP	100	5%	1/16W
R91	1-216-001-00	METAL CHIP	10	5%	1/10W
R92	1-216-001-00	METAL CHIP	10	5%	1/10W
R93	1-216-001-00	METAL CHIP	10	5%	1/10W
R94	1-216-809-11	METAL CHIP	100	5%	1/16W
R95	1-216-809-11	METAL CHIP	100	5%	1/16W
R96	1-216-809-11	METAL CHIP	100	5%	1/16W
R97	1-216-809-11	METAL CHIP	100	5%	1/16W
R101	1-216-033-00	METAL CHIP	220	5%	1/10W
R102	1-216-097-00	RES,CHIP	100K	5%	1/10W
R201	1-216-033-00	METAL CHIP	220	5%	1/10W
R202	1-216-097-00	RES,CHIP	100K	5%	1/10W
		< VARIABLE RESISTOR >			
RV11	1-241-225-11	RES, ADJ, METAL GRAZE 22K			
RV12	1-241-226-11	RES, ADJ, METAL GRAZE 47K			
		< SWITCH >			
SW11	1-762-526-11	SWITCH (⏏)			
		< THERMISTOR >			
TH11	1-810-510-21	THERMISTOR NTH5G35A472K01TE			
		< VIBRATOR >			
X11	1-579-125-11	VIBRATOR, CERAMIC (8.0MHz)			
X12	1-760-307-11	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
*	1-654-843-11	SENSOR BOARD			
		**********			
		< CONNECTOR >			
CNJ301	1-770-349-21	CONNECTOR, FPC 12P			
* CNP301	1-580-056-21	PIN, CONNECTOR 3P			
CNP302	1-580-055-21	PIN, CONNECTOR 2P			
CNP303	1-580-055-21	PIN, CONNECTOR 2P			
CNP304	1-580-055-21	PIN, CONNECTOR 2P			

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
SW301	1-571-754-31	SWITCH, PUSH (1 KEY)(LIMIT DETECT)	
SW302	1-571-754-31	SWITCH, PUSH (1 KEY) (CHUCKING MOVEMENT DETECT)	
**********			
*	1-654-845-11	SWITCH BOARD	
		**********	
		< SWITCH >	
SW401	1-570-953-11	SWITCH, PUSH (1 KEY)(DISC IN/OUT DETECT)	
SW402	1-570-953-11	SWITCH, PUSH (1 KEY) (TRAY MOVEMENT DETECT)	